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(FILE 'USPAT' ENTERED AT 09:55:51 ON 30 JUN 95)

L1 6 S INTERLEUKIN?(P)COLLOID?
L2 1 S INTERLEUKIN?(P)(GOLD)
L3 32 S INTERLEUKIN?(P)(METAL?)
L4 5 S (LIPID(W)A)(P)(COLLOID? OR GOLD OR METAL#) L5 26 S
(PHOSPHOLIPASE?)(P)(COLLOID? OR GOLD OR METAL#) L6 130 S (ENDOTOXIN# OR
LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID? OR G
L7 26 S (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID?) L8 82 S
(INTERFERON?)(P)(COLLOID? OR GOLD OR METAL#) L9 16 S (INTERFERON?)(P)(COLLOID?)
L10 3 S (TUMOR(W)NECROSIS(W)FACTOR OR TNF)(P)(COLLOID?) L11 1 S
(TRANSFORMING(W)GROWTH(W)FACTOR? OR TGF)(P)(COLLOID?) L12 0 S
LYMPHOTOXIN(P)COLLOID?
L13 0 S LYMPHOTOXIN(P)(GOLD)
L14 5 S (MIGRATION(W)INHIBITION(W)FACTOR OR MIF)(P)COLLOID? L15 0 S
(COLONY(W)STIMULATING(W)FACTOR?)(P)(COLLOID?) L16 0 S
(VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(COLLOID?) L17 0 S
(VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(GOLD) L18 0 S
(ANGIOGENIN)(P)(COLLOID?)
L19 0 S (ANGIOGENIN)(P)(GOLD)
L20 0 S (HEAT(W)SHOCK(W)PROTEINS)(P)(COLLOID? OR GOLD) L21 14 S
(BLOOD(W)GROUP? OR RH(W)FACTOR?)(P)(COLLOID? OR GOLD) L22 0 S
(FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(COLLOID?) L23 0 S
(FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(GOLD)

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SESSION WILL BE HELD FOR 30 MINUTES

U.S. Patent & Trademark Office SESSION SUSPENDED AT 11:03:00 ON 30 JUN 95

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ON 30 JUN 95

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E * * U. S. PATENT TEXT FILE * * * * *
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=> s interleukin?(P)colloid?
2078 INTERLEUKIN?
45337 COLLOID?
L1 6 INTERLEUKIN?(P)COLLOID?

=> d l1 1-6 cit kwic

1. 5,378,228, Jan. 3, 1995, Method and apparatus for joint fluid decompression and filtration with particulate debris collection; Thomas P. Schmalzried, et al., 604/8, 9, 19, 43 [IMAGE AVAILABLE]
US PAT NO: 5,378,228 [IMAGE AVAILABLE] L1: 1 of 6
DETDESC:

DETD(15)

In . . . material for forming ionic and/or chemical bonds with macromolecular ligands, such as immunoglobulins and/or chemical mediators, such as prostaglandins and/or interleukins . For example, in cases where metal debris is expected, the specific particle trap is suitably constructed with magnetic materials. These include materials made of iron or cobalt alloys, as well as colloidal suspensions of magnetic particles. The metal particles are trapped within the magnetic portion of the reservoir thus removing them from.

2. 5,234,767, Aug. 10, 1993, Hybrid paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/450; 436/829; 514/818 [IMAGE AVAILABLE]

US PAT NO: 5,234,767 [IMAGE AVAILABLE] L1: 2 of 6
DETDESC:

DETD(8)

Hydrophilic . . . calcitonin and glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin -2 and interferon, blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological and. . . polyurethanes, fluorocarbons, and related resins. Oil based materials include an exclusive listing of additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

3. 5,147,723, Sep. 15, 1992, Paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/184.1, 193.1, 196.11, 204.1, 216.1, 229.1, 280.1, 420, 450; 436/829; 514/6, 963; 525/936 [IMAGE AVAILABLE]

US PAT NO: 5,147,723 [IMAGE AVAILABLE] L1: 3 of 6
DETDESC:

DETD(7)

Hydrophilic . . . calcitonin and glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin -2 and interferon, blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological. . . fungicides, insect repellants, and lipophilic vitamins

and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

4. 5,000,960, Mar. 19, 1991, Protein coupling to lipid vesicles; Donald F. H. Wallach, 424/1.21; 264/4.3; 424/7.1, 179.1, 420, 450, 812; 428/402.2; 436/523, 526, 829; 514/963 [IMAGE AVAILABLE]

US PAT NO: 5,000,960 [IMAGE AVAILABLE] L1: 4 of 6
SUMMARY:

BSUM(46)

Hydrophilic . . . calcitonin and glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin -2 and interferon, blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological. . . fungicides, insect repellants, and lipophilic vitamins and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

5. 4,994,014, Feb. 19, 1991, Process for treating diseased cells including the step of raising the subjects blood oxygen level; Robert T. Gordon, 600/13; 128/205.26; 424/9 [IMAGE AVAILABLE]

US PAT NO: 4,994,014 [IMAGE AVAILABLE] L1: 5 of 6
CLAIMS:

CLMS(36)

36. . . .
the living tissue of the subject intracellular, chemically-generated energy particles, said particles being ferric oxyhydroxide particles of 0.7 micron size colloiddally suspend in a five percent dextrose aqueous solution in an amount of approximately fifty milligrams of particles per cubic centimeter. . . diseased cells; thereafter, raising the level of oxygen in the blood of the subject and thereby stimulating the intracellular production of interleukins and other activators, and thereby destroying the diseased cells; and after said raising step, applying to the subject an alternating electromagnetic. . .

6. 4,911,928, Mar. 27, 1990, Paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/1.21, 420, 450, 812, DIG.10; 436/829; 514/6, 179, 963; 525/936 [IMAGE AVAILABLE]

US PAT NO: 4,911,928 [IMAGE AVAILABLE] L1: 6 of 6
DETDSC:

DETD(7)

Hydrophilic . . . calcitonin and glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin -2 and interferon, blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological. . . fungicides, insect repellents, and lipophilic vitamins and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

=> s interleukin?(P)(gold or metal?)

SEARCH ENDED BY USER

=> s interleukin?(P)(gold)

2078 INTERLEUKIN?

49599 GOLD

L2 1 INTERLEUKIN?(P)(GOLD)

=> d l2 1

1. 5,017,692, May 21, 1991, Truncated human interleukin-a alpha; Gerard Zurawski, et al., 530/351; 435/69.52, 172.3, 252.33; 536/23.51; 935/19, 29, 41, 56, 61, 73, 81 [IMAGE AVAILABLE]

=> d l2 1 kwic

US PAT NO: 5,017,692 [IMAGE AVAILABLE] L2: 1 of 1

DETDESC:

DETD(2)

Synthetic genes for human interleukin -1.alpha. are provided which substantially comprise codons preferred by bacteria, particularly E. coli. Bacterial preferred codons are determined from a survey. . . Kastelein, in "Biased Codon Usage: An Exploration of its Role in Optimization of Translation," chapter 8, pgs. 225-283, Reznikoff and Gold, Eds., Biotechnology Series 1985. Table I below defines the bacterial preferred codons for use in accordance with the present invention.. . .

=> s interleukin?(P)(metal?)

2078 INTERLEUKIN?

747220 METAL?

L3 32 INTERLEUKIN?(P)(METAL?)

=> d l3 1-32 kwic

US PAT NO: 5,427,954 [IMAGE AVAILABLE] L3: 1 of 32

SUMMARY:

BSUM(7)

The . . . Soc. 15:212 [abstr.]; Lohmander, L. S., L. Dahlberg [1991] Trans. Orthop. Res. Soc. 16:227 [abstr.]). An important role for matrix metalloproteinases in both normal turnover of connective tissue matrix and in the tissue destruction seen in, for example, OA has been. . . Hembry, C. E. Hughes, A. J. Fosang, T. E. Hardingham [1990] Biochem. Soc. Trans. 18:812-815), and an imbalance between tissue metalloproteinases and inhibitors has been demonstrated in animal model OA cartilage, in joint fluids from patients with recent joint injury, and in OA joint fluids. Further, increased expression of mRNAs for collagenase, stromelysin, and metalloproteinase inhibitor has been shown in synovial cells stimulated with interleukin -1 and in synovial cells from rheumatoid or osteoarthritic joints (McCachren, S. S. [1991] Arthritis Rheum. 34:1076-1084; Firestein, G. S., M.. . .

US PAT NO: 5,414,089 [IMAGE AVAILABLE] L3: 2 of 32

DETDESC:

DETD(32)

Asparaginase, arginase, interleukin -1, IL-2, interleukin -3, interleukin -4, interleukin -5, interleukin -6,

interleukin -7, interleukin -8, urokinase, prourokinase, streptokinase, TPA, .beta.-glucosidase, .beta.-glucuronidase, .alpha.-galactosidase, adenosine deaminase, uricase, SOD, insulin, bilirubin oxidase, G-CSF, granulocyte macrophage colony-stimulating factor, macrophage. . . hormone, transforming growth factor-.beta.(TGF-.beta.), blood coagulation factor IX, protein C, protein S, insulin-like growth factor, calcitonin, somatostatin, tissue inhibitor of metalloproteinase (TIMP), atrial natriuretic hormone, CD-4 protein, cystatin, calpastatin, urinastatin and parathyroid hormone.

US PAT NO: 5,403,952 [IMAGE AVAILABLE] L3: 3 of 32
SUMMARY:

BSUM(7)

Stromelysin (aka. proteoglycanase, matrix metalloproteinase -3, MMP-3, procollagenase activator, "transin"), collagenase (aka. interstitial collagenase, matrix metalloproteinase -1), and gelatinase (aka. type IV collagenase, matrix metalloproteinase -2, MMP-2, 72kDa-gelatinase, gelatinase A or type V collagenase, matrix metalloproteinase -9, MMP-9, 95kDa-gelatinase, gelatinase B) are metalloendoproteinases secreted by fibroblasts, chondrocytes, and macrophage and are capable of degrading the major connective tissue components of articular cartilage or. . . (1989); J. -P. Pelletier, M. -P. Faure, J. A. DiBattista, S. Wilhelm, D. Visco, J. Martel-Pelletier, "Coordinate Synthesis of Stromelysin, Interleukin -1, and Oncogene Proteins in Experimental Osteoarthritis", Am. J. Path. 142, 95-105 (1993); L. A. Walakovits, N. Bhardwaj, G. S. Gallick, . . . collagenase and gelatinase, implying a cascade for degradative enzyme activity: A. Ho, H. Nagase, "Evidence that human rheumatoid synovial matrix metalloproteinase 3 is an endogenous activator of procollagenase", Arch Biochem Biophys., 267, 211-16 (1988); G. Murphy, M. I. Crockett, P. E. . . Docherty, "Stromelysin is an activator of procollagenase", Biochem. J., 248, 265-8 (1987); Y. Ogata, J. J. Enghild, H. Nagase, "Matrix Metalloproteinase 3 (stromelysin) activates the precursor for the human matrix metalloproteinase 9", J. Biol. Chem. 267, 3581-3584 (1992); K. Mikazaki, F. Umenishi, K. Funahashi, N. Yasumitsu, M. Umeda, "Activation of TIMP-2/Progelatinase. . .

US PAT NO: 5,378,228 [IMAGE AVAILABLE] L3: 4 of 32
DETDESC:

DETD(15)

In . . . of a broad range of sizes. Species-specific particle traps include, but are not limited to, the following: magnetic materials for metal particles; charcoal and/or reverse osmosis technology for ions; and adsorptive material for forming ionic and/or chemical bonds with macromolecular ligands, such as immunoglobulins and/or chemical mediators, such as prostaglandins and/or interleukins. For example, in cases where metal debris is expected, the specific particle trap is suitably constructed with magnetic materials. These include materials made of iron or cobalt alloys, as well as colloidal suspensions of magnetic particles. The metal particles are trapped within the magnetic portion of the reservoir thus removing them from the joint space and periprosthetic tissues.. . .

US PAT NO: 5,358,964 [IMAGE AVAILABLE] L3: 5 of 32
SUMMARY:

BSUM(32)

Interleukin -1 has been shown to induce a loss of proteoglycans from cartilage cultures, possibly by stimulating synthesis of the proteoglycan degrading. . . chondroprotective compounds that block cartilage degradation through inhibition of enzyme activity or by altering the gene expression of the matrix metalloproteinase stromelysin.

US PAT NO: 5,338,665 [IMAGE AVAILABLE] L3: 6 of 32
DETDESC:

DETD(18)

The . . . in addition to antibodies. These ligands include, by way of example and not limitation, growth factors, hormones, enzyme substrates, interferons, interleukins, intracellular and intercellular messengers, lectins, cellular adhesion molecules, and the like. Peptide ligands can also be identified by the present invention for molecules that are not peptides or proteins, e.g., carbohydrates, non-protein organic compounds, metals, etc. Thus, although antibodies are widely available and conveniently manipulated, antibodies are merely representative of receptor molecules for which peptide. . .

US PAT NO: 5,338,532 [IMAGE AVAILABLE] L3: 7 of 32

DETD(DESC:

DETD(35)

In . . . thioguanine, tobramycin, trimethoprim, and valban; toxins, such as diphtheria toxin, gelonin, exotoxin A, abrin, modeccin, ricin, or toxic fragments thereof; metal ions, such as the alkali and alkaline-earth metals; radionuclides, such as those generated from actinides or lanthanides or other similar transition elements or from other elements, such as . . . as fluorescing entities, phosphorescence entities and radiation; signal reflectors, such as paramagnetic entities, for example, Fe, Gd, or Mn; chelated metal, such as any of the metals given above, whether or not they are radioactive, when associated with a chelant; signal absorbers, such as contrast agents and . . . example, Fe, Gd or Mn; antibodies, including monoclonal antibodies and anti-idiotypic antibodies; antibody fragments; hormones; biological response modifiers such as interleukins, interferons, viruses and viral fragments; diagnostic opacifiers; and fluorescent moieties. Carried pharmaceutical materials include scavenging agents such as chelants, antigens, . . .

DETD(DESC:

DETD(36)

In . . . the carried materials can be toxins, such as diphtheria toxin, gelonin, exotoxin A, abrin, modeccin, ricin, or toxic fragments thereof; metal ions, such as the alkali and alkaline earth metals; radionuclides, such as those generated from actinides or lanthanides or other similar transition elements or from other elements, such as . . . such contrast agents and as electron beam opacifiers, for example, Fe, Gd, or Mn; hormones; biological response modifiers, such as interleukins, interferons, viruses and viral fragments; pesticides, including antimicrobials, algicides, arithelmatics, acaricides, II insecticides, attractants, repellants, herbicides and/or fungicides, such as . . . propanil, sethoxydin, temephos, terbufos, trifluralin, triforine, zineb, and the like. Carried agricultural materials include scavenging agents such as chelants, chelated metal (whether or not they are radioactive) or any moieties capable of selectively scavenging therapeutic or diagnostic agents.

US PAT NO: 5,336,782 [IMAGE AVAILABLE] L3: 8 of 32

DETD(DESC:

DETD(212)

Asparaginase, arginase, interleukin -1, IL-2, interleukin -3, interleukin -4, interleukin -5, interleukin -6, interleukin -7, interleukin -8, urokinase, prourokinase, streptokinase, TPA, .beta.-glucosidase, .beta.-glucuronidase, .alpha.-galactosidase, adenosine deaminase, uricase, SOD, insulin, bilirubin oxidase, G-CSF, granulocyte macrophage colony-stimulating factor, macrophage . . . transforming growth factor-.beta. (TGF-.beta.), blood coagulation factor IX, protein C, protein S, insulin-like growth factor, calcitonin, somatostatin, tissue inhibitor of metalloproteinase (TIMP), atrial natriuretic hormone, CD-4 protein, cystatin, calpastatin, urinastatin and parathyroid hormone.

US PAT NO: 5,326,357 [IMAGE AVAILABLE] L3: 9 of 32

DETD(DESC:

DETD(12)

The reconstituted cartilage tissue responds to interleukin 1.beta. in a similar manner to in vivo cartilage tissue. Interleukin 1.beta. stimulates production of matrix metalloproteases that can degrade cartilage matrix macromolecules and inhibit synthesis of proteoglycans. Treatment of the reconstituted tissue with human recombinant interleukin 1.beta. results in a loss of cartilage and matrix components.

US PAT NO: 5,312,816 [IMAGE AVAILABLE] L3: 10 of 32
SUMMARY:

BSUM(9)

Bone . . . by the release of collagenase and cathepsin D from osteoblasts at the bone surface. The cellular enzymes belong to the metalloproteinase group of proteolytic enzymes which usually function at neutral pH. PTH binds to membrane receptors on osteoblasts, pre-osteoblasts and osteocytes, . . . activates the release of calcium from the dense bone, probably due to the activation of lysosomal enzymes, e.g., cathepsins, cAMP, interleukin -1, or prostaglandins.

US PAT NO: 5,310,759 [IMAGE AVAILABLE] L3: 11 of 32
DETDESC:

DETD(5)

Chronic . . . and is associated with increased production and release of potent cytokines that initiate and amplify connective tissue destruction (Kirkham, B. " Interleukin -1. Immune Activation Pathways and Different Mechanisms In Osteoarthritis and Rheumatoid Arthritis." Ann Rheum Dis 50(6):395-400 (1991) and Bucala, R.; Ritchlin, . . . Fibro blasts." J. Exp Med 173(3):569-74 (1991)). Principle cytokines thought to be important in mediating the connective tissue destruction include Interleukin -1 (IL-1) and tumor necrosis factor (TNF), both of which increase the synthesis of matrix metalloproteinases (MMP) such as collagenase (EC 3.4.24.7, (MMP-1)) and stromelysin (EC3.4.24.17, (MMP-3)). These enzymes are thought to be directly responsible for. . . Types I, II and IX collagen and proteoglycans (Saklatvala, J. and Bird, T. A. "Effects of tumor necrosis factor-alpha and Interleukin -1 on the proteoglycan matrix of cartilage." In Development and Diseases of Cartilage and Bone Matrix, pp. 291-298, Alan R. Liss, Inc. pub. (1987) and Goldring, M. B.; Birkhead, J.; Sandell, L. J.; Kimura, T.; Krane, S. M.; " Interleukin -1 suppresses expression of cartilage-specific types II and IX collagens and increases types I and III collagens in human chondrocytes." J. . .

DETDESC:

DETD(12)

Collagenase or matrix metalloproteinase 1 (MMP-1) produced by synovial cells (fibroblastic cells lining the joint space) plays a major role in arthritis-induced articular cartilage. . . Angel, P. "Stimulation of procollagenase synthesis parallels increases in cellular procollagenase mRNA in human articular chondrocytes exposed to recombinant interleukin 1 or phorbol ester." Biochem. Biophys. Res. Commun. 144:583-590 (1987)). The DNA-binding protein (AP-1) which binds to the TRE and. . . E.; Raghoebar, R.; Stricklin, G. P.; Poppyton, H.; Seyer, J. M. and Kang, A. H. "Modulation of fibroblast function by interleukin 1 increased steady state accumulation RNAs and stimulation of other functions but not chemotaxis by human recombinant interleukin 1 alpha and beta." J. Cell Biol 105:311-317 (1988)). Therefore, the role of endogenous prostaglandins and in particular, PGE.sub.2 in. . .

DETDESC:

DETD(15)

The cytokines, Interleukin -1 (IL-1) and tumor necrosis factor (TNF) are synthesized in large amounts by inflammatory cells as well as by cells lining. . . osteoarthritic and rheumatoid arthritic joints. Secondly, exogenously added cytokines accelerate cartilage destruction, IL-1 and TNF enhance the production of neutral metalloproteinases and serine proteases by chondrocytes and synovial fibroblasts. These enzymes are capable of degrading collagen and proteoglycans. Thirdly, these cytokines. . . IL-1 and TNF stimulate chondrocytes, synovial cells and osteoblast to produce other endogenous mediators or enhancers of inflammation such as Interleukin 6 (IL-6) and prostaglandins. Elevated IL-6 secretion may initiate the dysplastic changes that are frequently seen in the arthritic joint,. . .

US PAT NO: 5,306,631 [IMAGE AVAILABLE] L3: 12 of 32
SUMMARY:

BSUM(8)

It . . . particular cell type. For example, it has been demonstrated that immunoglobulin kappa is specifically expressed in B lymphocyte cells, that interleukin -2 is selectively expressed in activated T-cells (Fujita et al. (1986) Cell 46:401-407), that gamma 2-crystallin is specifically expressed in the. . . Nature 306:557-561). Additionally, there are examples of non-specific but preferential expression of transferrin (McKnight et al. (1983) Cell 34:335-341) and metallothionein in the liver. A particularly important type of cell-preferential expression occurs with certain retroviruses including human T-cell leukemia viruses, HTLV's. . .

US PAT NO: 5,283,339 [IMAGE AVAILABLE] L3: 13 of 32
SUMMARY:

BSUM(49)

Other proteins that can be purified by metal chelate separations include tissue plasminogen activator, urokinase and interleukin - 1.beta..

US PAT NO: 5,270,170 [IMAGE AVAILABLE] L3: 14 of 32
DETDESC:

DETD(18)

The . . . in addition to antibodies. These ligands include, by way of example and not limitation, growth factors, hormones, enzyme substrates, interferons, interleukins, intracellular and intercellular messengers, lectins, cellular adhesion molecules, and the like. Peptide ligands can also be identified by the present invention for molecules that are not peptides or proteins, e.g., carbohydrates, non-protein organic compounds, metals, etc. Thus, although antibodies are widely available and conveniently manipulated, antibodies are merely representative of receptor molecules for which peptide. . .

US PAT NO: 5,258,498 [IMAGE AVAILABLE] L3: 15 of 32
DETDESC:

DETD(131)

The . . . tumor antigen, e.g., CEA, to produce a construct useful in cancer therapy The calmodulin construct binds radioactive ions and other metal ions. Its BABS may be specific, for example, to fibrin or a tumor antigen, so that it can be used. . . The BABS-streptavidin protein could then be bound to the matrix or support for affinity chromatography or solid phase immunoassay. The interleukin -2 construct could be linked, for example, to a BABS specific for a T-cell surface antigen. The FB-FB dimer binds to. . .

US PAT NO: 5,243,041 [IMAGE AVAILABLE] L3: 16 of 32
DETDESC:

DETD(54)

A . . . include TGF.alpha. receptor (which is present in abnormally high quantities on the surfaces of certain human epidermoid carcinoma cells) and interleukin -2 (which is a growth factor for both T cells and T lymphoma cells). Accordingly, it is possible to couple such. . . in genetically transformed cells; see e.g. references 55 and 56. The fusion peptide can be mixed with a source of metal ions other than zinc, such as cadmium or platinum, to generate an MPS analog which may be capable of suppressing. . .

US PAT NO: 5,202,118 [IMAGE AVAILABLE] L3: 17 of 32

DETDESC:

DETD(12)

A . . . preventing degradation by proteolytic agents. Chelating agents such as EDTA may be employed if the final product is stored in metal tubes, in order to reduce the possibility of reaction of the active interleukin -1 ingredients with metal ions. Dyes also may be added to IL-1 protein mixtures before they are mixed with the gel. To assure product. . .

US PAT NO: 5,200,327 [IMAGE AVAILABLE] L3: 18 of 32

DETDESC:

DETD(4)

The . . . as glucose isomerase, amylases, lipases, pectinases, cellulases, proteinases, oxidases, ligninases; enzyme inhibitors, such as hirudin, B-lactamase inhibitor, and alpha 1-antitrypsin; metalloenzymes, such as superoxide dismutase; blood factors, such as Factor VIII, Factor IX, tissue-type plasminogen activator and urokinase; hormones, such as proinsulin; lymphokines, such as beta and gamma-interferon, and interleukin -2; cytotoxins, such as tumour necrosis factor, lymphotoxin, and interleukin -1; growth factors, such as nerve growth factors, epidermal growth factors, transforming growth factor, platelet-derived growth factors, and fibroblast growth factors; other colony stimulating factors, such as interleukin -3 and granulocyte colony stimulating factor; immunoglobulin-related molecules, such as synthetic, designed, or engineered antibody molecules; cell receptors, such as cholesterol. . .

US PAT NO: 5,188,828 [IMAGE AVAILABLE] L3: 19 of 32

SUMMARY:

BSUM(31)

Acute . . . a systemic reaction to inflammation or tissue injury that is characterized by leukocytosis, fever, increased vascular permeability, alterations in plasma metal and steroid concentrations, and increased levels of acute phase proteins. Several acute phase proteins are induced by interleukin -6, such as fibrinogen, alpha-1-antichymotrypsin, alpha-1-acid glycoprotein, and haptoglobin in human hepatoma cell line, HepG2. Serum amyloid A, C-reactive protein, and alpha-1-antitrypsin in human primary hepatocytes are also induced by interleukin -6 (Castell, J. V., et al., FEBS Lett 232:347 (1988)). In vivo administration of interleukin -6 in rats also induced characteristic acute phase reactions. The results confirmed the in vivo role of interleukin -6 in acute phase reaction (Geiger, T., et al., Eur J Immunol 18:717 (1988)).

US PAT NO: 5,180,678 [IMAGE AVAILABLE] L3: 20 of 32

CLAIMS:

CLMS(6)

6. Method of claim 5, wherein said labeled, isolated interleukin 9 is labeled with a member selected from the group consisting of a radiolabel, an enzyme label and a metal particle.

CLMS(3)

3. . . .

antiporter, in which the inhibitors are selected from the group of amiloride and its derivatives;
D. Inhibitors of protease, serine protease, metalloendoproteases and aspartyl protease, and thiol protease inhibitors selected from the group of benzyloxycarbonyl-leu-norleucinal (calpeptin) and acetyl-leu-leu-norleucinal;
E. Nitrovasodilators, wherein the nitrovasodilator. . . isobutyl methylxanthine;
G. Phenothiazines, wherein the phenothiazine is amytriptyline; H. Growth factor receptor antagonists for platelet-derived growth factor (PDGF), epidermal growth factor, interleukins , transforming growth factors alpha and beta, and acidic or basic fibroblast growth factors; I. Anti-mitotic agents selected from the group of. . .

CLAIMS:

CLMS(6)

6. . . .

antiporter, in which the inhibitors are selected from the group of amiloride and its derivatives;
D. Inhibitors of protease, serine protease, metalloendoproteases and aspartyl protease, and thiol protease inhibitors selected from the group of benzyloxycarbonyl-leu-norleucinal (calpeptin) and acetyl-leu-leu-norleucinal;
E. Nitrovasodilators, wherein the nitrovasodilator. . . isobutyl methylxanthine;
G. Phenothiazines, wherein the phenothiazine is amytriptyline; H. Growth factor receptor antagonists for platelet-derived growth factor (PDGF), epidermal growth factor, interleukins , transforming growth factors alpha and beta, and acidic or basic fibroblast growth factors; I. Anti-mitotic agents selected from the group of. . .

CLAIMS:

CLMS(10)

10. . . .

antiporter, in which the inhibitors are selected from the group of amiloride and its derivatives;
D. Inhibitors of protease, serine protease, metalloendoproteases and aspartyl protease, and thiol protease inhibitors selected from the group of benzyloxycarbonyl-leu-norleucinal (calpeptin) and acetyl-leu-leu-norleucinal;
E. Nitrovasodilators, wherein the nitrovasodilator. . . isobutyl methylxanthine;
g. Phenothiazines, wherein the phenothiazine is amytriptyline; H. Growth factor receptor antagonists for platelet-derived growth factor (PDGF), epidermal growth factor, interleukins , transforming growth factors alpha and beta, and acidic or basic fibroblast growth factors; I. Anti-mitotic agents selected from the group of. . .

US PAT NO: 5,126,129 [IMAGE AVAILABLE]
SUMMARY:

BSUM(10)

Compounds . . . alkyl or lower alkoxy; n equals 1; R.sub.2 is hydrogen a lower dialkylamino lower alkyl or morpholinoethyl; or an alkali metal salt of said acid, have been disclosed in U.S. Pat. No. 4,602,234, which is incorporated herein by reference, and in. . . disclosed that the antitumor activity of flavone-8-acetic acid (FAA), a compound disclosed in that patent, was enhanced by administration with interleukin -2.

SUMMARY:

BSUM(12)

It has now been shown that interleukin -2 enhances anticancer activity of Formula 1 analogues of FAA when administered in accord with the method of the invention. ##STR2## . . . alkyl or lower alkoxy; n equals 1; R.sub.2 is hydrogen a lower dialkylamino lower alkyl or morpholinoethyl; or an alkali metal salt of said acid.

CLAIMS:

CLMS(1)

What . . .

n equals 1; R.sub.2 is hydrogen, a lower dialkylamino, lower alkyl or morpholinoethyl for treating said cancer; or an alkali metal salt of said acid; and an effective amount of interleukin 2 for treating said cancer.

CLAIMS:

CLMS(10)

10. . . . administering by injection to a host an effective amount of a flavone compound of the formula: ##STR6## or an alkali metal salt thereof; and an effective amount of interleukin 2.

CLAIMS:

CLMS(12)

12. . . . n equals 1; R.sub.2 is hydrogen, a lower dialkylamino, lower alkyl or morpholinoethyl for treating the cancer; or an alkali metal salt of said acid; and an effective amount of interleukin -2 for treating the cancer; and a pharmaceutically acceptable carrier therefor.

US PAT NO: 5,102,909 [IMAGE AVAILABLE]

L3: 23 of 32

SUMMARY:

BSUM(15)

In . . . are responsible for allograft rejection, delayed, cutaneous hypersensitivity (DCH), chemical sensitization to poison ivy, oak, sumac as well as certain metals . This DCH reaction is called such because it takes 24-48 hours to develop subsequent to exposure to the antigen. Cellular. . . potent array of biologically active molecules with a variety of effects. Some select examples of these T-cell lymphokines include the interleukin 2 (T-cell growth factor), B-cell growth factor, interferon (gamma), and macrophages produce lymphokines (IL-1). These lymphokines serve at least two. . .

US PAT NO: 5,098,933 [IMAGE AVAILABLE]

L3: 24 of 32

SUMMARY:

BSUM(14)

In . . . are responsible for allograft rejection, delayed, cutaneous hypersensitivity (DCH), chemical sensitization to poison ivy, oak, sumac as well as certain metals . This DCH reaction is called such because it takes 24-48 hours to develop subsequent to exposure to the antigen. Cellular. . . potent array of biologically active molecules with a variety of effects. Some select examples of these T-cell lymphokines include the interleukin 2 (T-cell growth factor), B-cell growth factor, interferon (gamma), and macrophages produced lymphokines (IL-1). These lymphokines serve at least two. . .

US PAT NO: 5,094,854 [IMAGE AVAILABLE]
SUMMARY:

L3: 25 of 32

BSUM(25)

The . . . which logarithm of the partition coefficient in octanol/water is 10 or less are desirable. The examples of such drugs include metal complexes such as cisplatin (CDDP), carboplatin, tetraplatin, and iproplatin, anticancer antibiotics such as adriamycin, mitomycin C (MMC), actinomycin, ansamitocin or . . . as melpharan and mitoxantrone, as well as lymphokines such as natural and recombinant interferons (.alpha., .beta., .gamma.) natural and recombinant interleukin 2. Among these drugs, those which are expected to show synergistic effects when combined with hyperthermia therapy and which improve. . .

US PAT NO: 5,077,388 [IMAGE AVAILABLE]
SUMMARY:

L3: 26 of 32

BSUM(10)

1. Subjecting crude fermentation broth to affinity chromatography on a metal chelating-agarose gel column such as a chelating- Sepharose.RTM. gel available from Pharmacia Fine Chemicals, Piscataway, N.J. under the names chelating-Sepharose.RTM. Fast. . . preferably about 7.2. The high salt concentration and near neutral pH of about 7.2 helps maximize binding of the active interleukin -4 and minimize binding of other proteins to the column. The preferred metal chelate is zinc, although other metal chelates such as copper, cobalt or nickel can be used. After the binding is completed, the column is washed twice, . .

DETDESC:

DETD(2)

The method of this invention makes it possible to subject a crude solution of active recombinant human interleukin 4 to affinity chromatography, cation exchange chromatography and size exclusion chromatography to obtain high purity active IL-4. By using a . . . concentrations of sodium chloride, preferably 1 M sodium chloride, active IL-4 molecules are selectively bound by affinity chromatography to a metal chelating-agarose gel column, preferably chelating Sepharose Fast Flow or Sepharose 6B, to the substantial exclusion of contaminating proteins present in. . .

CLAIMS:

CLMS(1)

We claim:

1. A process for purifying a crude solution of active recombinant human interleukin -4, comprising
(a) charging said crude solution of IL-4 buffered at a neutral to slightly alkaline pH and containing about 0.5-1.5M sodium chloride to a metal chelating agarose gel chromatography column to selectively bind the active recombinant human interleukin -4 to the column; (b) washing said column twice, first with an equilibration buffer containing 1.0M sodium chloride and then with a buffer containing 10% glycerol and 0.15M sodium chloride;
(c) eluting the bound active recombinant human interleukin -4 from the column with an eluting buffer at about pH 4.5 to 5.5; (d) charging the active human IL-4 solution from. . . to pass; (f) subjecting the concentrate from (e) to size exclusion chromatography; and
(g) recovering the purified solution of active recombinant human interleukin -4.

US PAT NO: 5,077,284 [IMAGE AVAILABLE]
DETDESC:

L3: 27 of 32

DETD(63)

Suitable . . . developed by Du Pont/HEM Research; anti-human .alpha.-interferon antibody manufactured by Advance Biotherapy and Concepts; anti-AIDS antibody (Nisshon Food); AS-101 (heavy metal based immunostimulant); ascorbic acid and derivatives thereof; .beta.-interferon; Carrosyn (polymannoacetate); Ciamexon manufactured by Boehringer Mannheim; Cyclosporin; Cimetidine; CL246,738 manufactured by. . . Hyperimmune (gamma-globulin) manufactured by Bayer; IMREG-1 (leucocyte dialyzate) and IMREG-2 manufactured by IMREG; immuthiol (sodium diethylthiocarbamate) manufactured by Institut Merieux; Interleukin -1, Interleukin -2 manufactured by Cetus Corporation, Hoffmann-La Roche and Immunex; isoprinosine (inosine pranobex); Krestin manufactured by Sankyo; LC-9018 developed by Yakult; Lentinan. . .

US PAT NO: 5,034,133 [IMAGE AVAILABLE]

L3: 28 of 32

SUMMARY:

BSUM(12)

3. Subjecting the solution of active IL-4 from step 2 to affinity chromatography on a metal chelating-agarose gel column after adjusting the solution to pH 7.2 and conductivity to 45-50 mS. The chelating-Sepharose.RTM. gel is available. . . 6.7-8, preferably about 7.2. The salt concentration and near neutral pH of about 7.2 helps maximize binding of the active interleukin -4 and minimize binding of other proteins to the column. The preferred metal chelate is cobalt although other metal chelates such as zinc, copper or nickel can be used. After the binding is completed, the column is washed with. . . SUMMARY:

BSUM(16)

The method of this invention makes it possible to subject a crude solution of active recombinant human interleukin 4 to cation exchange chromatography, metal chelating affinity chromatography, and size exclusion chromatography to obtain high purity active IL-4. The sequential order of the chromatography steps.

CLAIMS:

CLMS(1)

We claim:

1. A process for purifying a crude solution of active recombinant human interleukin -4 expressed from CHO-cell lines, comprising (a) charging said crude solution of active IL-4 buffered at a neutral to slightly alkaline. . . 15 mS to cation exchange chromatography on a cross-linked agarose gel matrix column to selectively bind the active recombinant human interleukin -4 to the column, washing with an equilibration buffer and isocratically eluting the active IL-4 from the column;
- (b) charging the active. . . of the eluate pool to pH 7.2 and the conductivity to 45-50 mS, then charging the pooled eluates to a metal chelating agarose gel column in a buffer at about pH 6.7 to 8 and containing about 0.5M sodium chloride, then. . . and N,N'-methylene bisacrylamide equilibrated with a buffer system at pH 4.5; and
- (f) collecting the purified solution of active recombinant human interleukin -4.

US PAT NO: 4,956,355 [IMAGE AVAILABLE]

L3: 29 of 32

SUMMARY:

BSUM(46)

Suitable . . . developed by Du Pont/HEM Research; anti-human .alpha.-Interferon antibody manufactured by Advance Biotherapy and Concepts; anti-AIDS antibody (Nisshon Food); AS-101 (heavy metal based immunostimulant), ascorbic acid and derivatives thereof; .beta.-interferon; Carrosyn (polymannoacetate); Ciamexon manufactured by Boehringer Mannheim; Cyclosporin; Cimetidine; CL246,738 manufactured by. . . Hyperimmue (gamma-globulin) manufactured by Bayer; IMREG-1 (leucocyte dialyzate) and IMPREG-2 manufactured by IMREG; immuthiol (sodium diethylthiocarbamate) manufactured by Institut Merieux; Interleukin -1, Interleukin -2 manufactured by Cetus Corporation, Hoffmann-La Roche and Immunex; isoprinosine (inosine pranobex); Krestin manufactured by Sankyo; LC-9018 developed by Yakult; Lentinan. . .

US PAT NO: 4,883,808 [IMAGE AVAILABLE] L3: 30 of 32
SUMMARY:

BSUM(13)

In . . . are responsible for allograft rejection, delayed, cutaneous hypersensitivity (DCH), chemical sensitization to poison ivy, oak, sumac as well as certain metals . This DCH reaction is called such because it takes 24-48 hours to develop subsequent to exposure to the antigen. Cellular. . . potent array of biologically active molecules with a variety of effects. Some select examples of these T-cell lymphokines include the interleukin 2 (T-cell growth factor), B-cell growth factor, interferon (gamma), and macrophages produce lymphokines (IL-1). These lymphokines serve at least two. . .

US PAT NO: 4,723,000 [IMAGE AVAILABLE] L3: 31 of 32
ABSTRACT:

A process for producing unique human interferon gamma and interleukin -2 by chromatographic fractionation utilizing ion exchange and metal chelate chromatography. The interferon gamma and interleukin -2 are purified from crude interferon obtained by mitogen induction of human white blood cells.

CLAIMS:

CLMS(1)

What . . .

the purification of crude interferon produced by the mitogen induction of human white blood cells to provide interferon gamma or interleukin -2, the improvement of which comprises utilization of cation exchange chromatography as the first chromatographic fraction step, and thereafter the eluate from the cation exchange chromatography fractionation step is subjected directly to further fractionation by metal chelate chromatography charged with zinc ions or cupric ions.

CLAIMS:

CLMS(2)

2. The process for the production of human interferon gamma and interleukin -2 from crude interferon produced by the mitogen induction of human white blood cells which comprises:

- (i) first fractionating the crude interferon by cation exchange chromatography and eluting the proteins containing interferon gamma and interleukin -2 from the cation exchange matrix;
- (ii) subjecting the eluate from step (i) to fractionation by metal chelate chromatography charged with zinc ions or cupric ions; (iii) directly subjecting the fraction from step (ii) containing interferon gamma and interleukin -2 to fractionation by affinity chromatography utilizing a matrix to which only the interferon gamma binds and to which interleukin -2 does not bind and eluting the bound interferon gamma from the matrix; and
- (iv) recovering the eluate from step (iii) as. . .

CLAIMS:

CLMS(4)

4. The process for the production of human interferon gamma and interleukin -2 from crude interferon produced by the mitogen induction of human white blood cells which comprises:
- (i) first fractionating the crude interferon by cation exchange chromatography and eluting the proteins containing interferon gamma and interleukin -2 from the cation exchange matrix;
 - (ii) subjecting the eluate from step (i) to fractionation by metal chelate chromatography; charged with zinc ions or cupric ions (iii) directly subjecting the fractions from step (ii) containing interferon gamma and interleukin -2 to fractionation by affinity chromatography utilizing a matrix to which only the interferon gamma binds and to which interleukin -2 does not bind and eluting the bound interferon gamma from the matrix;
 - (iv) further fractionating the non-absorbed fraction of step (iii) by ion exchange chromatography utilizing an ion exchange matrix to which interleukin -2 binds; and
 - (v) eluting the bound interleukin -2 to provide purified interleukin -2.

CLAIMS:

CLMS(8)

8. In a process, including chromatographic fractionation steps, for the purification of human interleukin -2, produced from mitogen-induced human white blood cells, the improvement comprising utilization of metal chelate chromatography, said metal consisting essentially of cupric ions.

US PAT NO: 4,572,798 [IMAGE AVAILABLE] L3: 32 of 32
SUMMARY:

BSUM(9)

The . . . specific protein without extensive side reactions is not possible at this time. The present invention demonstrates the ability of certain metal -containing compounds to promote highly selective and useful formation of disulfides in various forms of recombinant interleukin -2 and .beta.-interferon.

=> s (lipid(w)A)(p)(colloid? or gold or metal#)
9190 LIPID
1796359 A

45337 COLLOID?
49599 GOLD
685918 METAL#

L4 5 (LIPID(W)A)(P)(COLLOID? OR GOLD OR METAL#)

=> d l4 1-5 cit ab

1. 5,229,376, Jul. 20, 1993, Encapsulated plant-derived phosphatidylinositol (PI) compositions for the prevention of mitogenically induced cell proliferation; Carl R. Alving, et al., 514/76, 77, 78; 552/506, 544 [IMAGE AVAILABLE]

US PAT NO: 5,229,376 [IMAGE AVAILABLE] L4: 1 of 5
ABSTRACT:

Encapsulated PI compositions such as liposomes containing plant PI and th use to prevent mitogenic transformation of normal splenic lymphoid cells (including lymphocytes transformed induced by treatment of cells with lipid A) by exposing the cells thereto.

2. 5,158,941, Oct. 27, 1992, Lipid A analog as stimulant for production of interleukin-1 in human monocytes and tumor cell growth inhibitor; Prabhakar K. Jadhav, et al., 514/62, 42, 53; 536/17.3, 18.2, 18.7, 53, 117, 119 [IMAGE AVAILABLE]

US PAT NO: 5,158,941 [IMAGE AVAILABLE] L4: 2 of 5

ABSTRACT:

This invention concerns the use of synthetic Lipid A analog P9132 to activate human monocytes, and inhibit growth of tumor cells.

3. 4,495,346, Jan. 22, 1985, Method of preparing a disaccharide; Laurens Anderson, et al., 536/18.5, 4.1, 17.2, 53, 119, 124 [IMAGE AVAILABLE]

US PAT NO: 4,495,346 [IMAGE AVAILABLE] L4: 3 of 5

ABSTRACT:

=>

=>

=> d l4 1-5 cit kwic

1. 5,229,376, Jul. 20, 1993, Encapsulated plant-derived phosphatidylinositol (PI) compositions for the prevention of mitogenically induced cell proliferation; Carl R. Alving, et al., 514/76, 77, 78; 552/506, 544 [IMAGE AVAILABLE]

US PAT NO: 5,229,376 [IMAGE AVAILABLE] L4: 1 of 5

SUMMARY:

BSUM(7)

Mitogens: . . . been caused to proliferate because of numerous so-called "Nonspecific" mitogenic stimuli, such as plant lectins, bacterial lipopolysaccharides (of which the lipid A moiety is the active fraction), heavy metal ions, ionophores, proteolytic enzymes, antibodies to membrane components, and many others.

2. 5,158,941, Oct. 27, 1992, Lipid A analog as stimulant for production of interleukin-1 in human monocytes and tumor cell growth inhibitor; Prabhakar K. Jadhav, et al., 514/62, 42, 53; 536/17.3, 18.2, 18.7, 53, 117, 119 [IMAGE AVAILABLE]

US PAT NO: 5,158,941 [IMAGE AVAILABLE] L4: 2 of 5

CLAIMS:

CLMS(1)

What . . .

human monocytes within a cell culture medium which comprises contacting said monocytes with a solution of a synthetic analog of Lipid A of the structure ##STR19## wherein each R is a C.sub.6 -C.sub.20 alkyl group; R' is H, a trialkylammonium ion or an alkaline metal where stereo configurations at position 30' are (R) or (S), or combinations thereof or are racemic.

3. 4,495,346, Jan. 22, 1985, Method of preparing a disaccharide; Laurens Anderson, et al., 536/18.5, 4.1, 17.2, 53, 119, 124 [IMAGE AVAILABLE]

US PAT NO: 4,495,346 [IMAGE AVAILABLE] L4: 3 of 5

DETDESC:

DETD(69)

In . . . of the drawing is illustrated a proposed route from the protected disaccharide Compound 14b to the palmitoyl analog of monodephospho lipid A . Step 1 in the proposed route is phosphorylation at position 4' with a reagent of the type ##STR7## where R. . . the phosphate group. The reagent employed will depend on the nature of R; it may be H.sub.2 plus a noble metal catalyst, ammonium hydroxide, zinc-copper couple, bromine, or other. Kossel and Seliger (supra). In the formula, M+ is a cation which. . .

4. 4,328,222, May 4, 1982, Pharmaceutical compositions for parenteral or local administration; Dieter Schmidt, 514/221, 772, 785, 786 [IMAGE AVAILABLE]

US PAT NO: 4,328,222 [IMAGE AVAILABLE] L4: 4 of 5
SUMMARY:

BSUM(10)

The colloidal aqueous vehicle utilizes, as the micelle forming agent, a combination of a short-chain lecithin and a non-hemolytic lipid . A non-hemolytic lipid is a lipid which does not have hemolytic activity.

5. 4,271,196, Jun. 2, 1981, Pharmaceutical compositions for parenteral or local administration; Dieter Schmidt, 514/786 [IMAGE AVAILABLE]

US PAT NO: 4,271,196 [IMAGE AVAILABLE] L4: 5 of 5
SUMMARY:

BSUM(10)

The colloidal aqueous vehicle utilizes, as the micelle forming agent, a combination of a short-chain lecithin and a non-hemolytic lipid . A non-hemolytic lipid is a lipid which does not have hemolytic activity.

=> s (phospholipase?)(p)(colloid? or gold or metal#)

945 PHOSPHOLIPASE?
45337 COLLOID?
49599 GOLD
685918 METAL#

L5 26 (PHOSPHOLIPASE?)(P)(COLLOID? OR GOLD OR METAL#)
=> d l5 1-26 cit kwic

1. 5,418,147, May 23, 1995, Glycosyl-phosphatidylinositol-specific phospholipase D; Kuo-Sen Huang, et al., 435/69.1, 68.1, 69.7, 69.8, 198, 252.3, 320.1; 536/23.2, 23.4; 935/47, 48 [IMAGE AVAILABLE]

US PAT NO: 5,418,147 [IMAGE AVAILABLE] L5: 1 of 26
DETD(75):

DETD(75)

Bovine liver cDNA libraries were screened with synthetic oligonucleotides corresponding to peptide sequences derived from purified bovine glycosyl phosphatidyl inositol-specific phospholipase D (GPI-PLD). Two overlapping clones were isolated that together predict the exact amino acid sequence of all eight tryptic fragments. . . amino acids. The deduced sequence contained eight potential N-linked glycosylation sites and at least four regions with sequence similarity to metal ion

binding domains of members of the integrin family (19). These observations were consistent with the characterized GPI-PLD being 100 kd in size, glycosylated, and metal ion-dependent. The identification of the cloned cDNA was confirmed by two assays for biological activity. First, culture media and cell lysates of COS cells transfected with the gene showed phospholipase activity using ^3H -labelled GPI-anchored variant surface glycoprotein (VSG) of the African trypanosome as substrate in an in vitro assay. . . the in vitro VSG assays by thin layer chromatography showed that phosphatidic acid was a reaction product confirming that the phospholipase activity was that of phospholipase D. Second, COS cells transfected with a gene encoding GPI-anchored placental alkaline phosphatase (PLAP) released significant amounts of PLAP into.

2. 5,416,192, May 16, 1995, Epithelins: novel cysteine-rich growth modulating proteins; Mohammed Shoyab, et al., 530/324; 435/69.1; 530/399 [IMAGE AVAILABLE]

US PAT NO: 5,416,192 [IMAGE AVAILABLE] L5: 2 of 26
DETDESC:

DETD(147)

Comparison . . . of the cysteine-rich motifs of rat epithelin (CCX.sub.2 HX.sub.2 C), and conforms to a consensus surrounding an active site of phospholipase A2 (Gomez et al., 1989, J. Eur. J. Biochem. 186:23-33). Finally, an extended homology exists between the 12 cysteine motif. . . tomato thiol protease (FIG. 20D). This noncatalytic domain has been hypothesized to regulate the protease activity by binding to heavy metals. The alternating cysteine and histidine residues in the epithelin precursor is reminiscent of metal-binding domains of a variety of proteins, although the epithelin motif does not conform to that of any known metal-binding consensus. Northern analysis demonstrates that the 2.3 kilobase epithelin transcript is ubiquitously expressed, and is predominant in the adult kidney, . . .

DETDESC:

DETD(151)

Epithelin . . . any of these assays. Perhaps the intact precursor serves an entirely different role than the processed forms, such as chelating metal ions, or regulation of proteases and phospholipases .

3. 5,384,257, Jan. 24, 1995, Glucose isomerases with an altered pH optimum; Anne-Marie Lambeir, et al., 435/234, 69.1, 172.3, 252.3, 252.33; 536/23.2; 935/10, 14, 60, 72, 75 [IMAGE AVAILABLE]

US PAT NO: 5,384,257 [IMAGE AVAILABLE] L5: 3 of 26
SUMMARY:

BSUM(25)

Secondly, metal ions can act as a cofactor in the catalytic mechanism. In this case the enzyme activity is strictly dependent upon the presence of the metal ion in the active site. The metal ion may for instance serve as a bridge between the enzyme and the substrate (e.g. Ca^{2+} in phospholipase binds the phosphate group of the substrate) or it may activate water to become a powerful nucleophilic hydroxyl ion (Zn^{2+} . . .

SUMMARY:

BSUM(26)

Examples are the Zn^{2+} -proteases such as thermolysin and carboxypeptidase, carbonic anhydrase (Zn^{2+}), phospholipase - A.sub.2 (Ca^{2+}) staphylococcal nuclease (Ca^{2+}) and alkaline

phosphatases (Mg.sup.2+, Ca.sup.2+). Examples of alpha/beta barrel enzymes which require cations to polarize a . . . ribulose-1,5- biphosphate carboxylase/oxygenase (RUBISCO) (Mg.sup.2+), enolase (Mg.sup.2+), yeast aldolase (Mg.sup.2+, K.sup.1+), mandolate racemase (Mg.sup.2+), muconate cycloisomerase (Mn.sup.2+). In the presence of metal chelating agents (such as EDTA), these enzymes loose their activity completely.

4. 5,340,738, Aug. 23, 1994, Modified prokaryotic glucose isomerase enzymes with altered pH activity profiles; Anne-Marie Lambeir, et al., 435/234, 69.1, 172.3, 252.3, 252.33; 536/23.2; 935/10, 14, 60, 72, 75 [IMAGE AVAILABLE]

US PAT NO: 5,340,738 [IMAGE AVAILABLE] L5: 4 of 26
SUMMARY:

BSUM(25)

Secondly, metal ions can act as a cofactor in the catalytic mechanism. In this case the enzyme activity is strictly dependent upon the presence of the metal ion in the active site. The metal ion may for instance serve as a bridge between the enzyme and the substrate (e.g. Ca.sup.2+ in phospholipase binds the phosphate group of the substrate) or it may activate water to become a powerful nucleophilic hydroxyl ion (Zn.sup.2+ . . .

SUMMARY:

BSUM(26)

Examples are the Zn.sup.2+ -proteases such as thermolysin and carboxypeptidase, carbonic anhydrase (Zn.sup.2+), phospholipase - A.sub.2 (Ca.sup.2+) staphylococcal nuclease (Ca.sup.2+) and alkaline phosphatases (Mg.sup.2+, Ca.sup.2+). Examples of alpha/beta barrel enzymes which require cations to polarize. . . (Mg.sup.2+), enolase (Mg.sup.2+), yeast aldolase (Mg.sup.2+, K.sup.1+) mandolate racemase (Mg.sup.2+), muconate cycloisomerase (Mn.sup.2+). In the presence of metal chelating agents (such as EDTA), these enzymes loose their activity completely.

5. 5,314,811, May 24, 1994, Process for converting lipid-containing bacterial capsular polysaccharide into lipid-free polysaccharide; Ann L. Lee, et al., 435/101; 210/601, 616, 631; 424/256.1, 831; 435/170, 262, 280; 536/117, 123.1 [IMAGE AVAILABLE]

US PAT NO: 5,314,811 [IMAGE AVAILABLE] L5: 5 of 26
SUMMARY:

BSUM(14)

A . . . preparation of PRP derived from a culture of Haemophilus influenzae type b by cleaving the covalent lipids from PRP with phospholipase D in a buffer containing about 50% by volume of organic enzyme activators, about 0.3% detergent, and about 5 mM divalent metal cation, at about 35.degree. C. and about neutral pH, for about 30 minutes to about 4 hours, followed by removal. . .

6. 5,264,367, Nov. 23, 1993, Enzymatic treatment of edible oils; Erik Aalrust, et al., 435/271, 262, 267 [IMAGE AVAILABLE]

US PAT NO: 5,264,367 [IMAGE AVAILABLE] L5: 6 of 26
DETDESC:

DETD(3)

The phospholipase is suitably employed in an aqueous solution which is emulsified in the oil to the finest possible state of division.. . . this reason enter the aqueous phase and are removed from the oil together with the aqueous phase, just as are metal ions present.
DETDESC:

DETD(8)

Enzymatic . . . be added as the acid or as a buffer system in combination with a citrate salt, such as an alkali metal salt like sodium citrate, an alkaline earth metal salt (e.g. calcium citrate), or as the ammonium salt. Suitable quantities are 0.01 to 1 percent, by weight of the. . . 4 to 6. The optimum is about pH 5. Surprisingly, that pH value will be an optimum even if the phospholipase is added as a pancreatic enzyme complex. In other processes, the pancreatic enzyme complex has an optimum pH value of. . .

7. 5,229,367, Jul. 20, 1993, Antiinflammatory peptide derived from human lipocortin V; Mauro Perretti, et al., 514/15, 2; 530/300, 328 [IMAGE AVAILABLE]

US PAT NO: 5,229,367 [IMAGE AVAILABLE] L5: 7 of 26
SUMMARY:

BSUM(11)

The . . . the present invention can form salts with organic and inorganic bases. Said salts include ammonium salts, salts of an alkali metal of such as sodium or potassium, salts of alkali-earth metals, such as calcium or magnesium, or salts with organic bases such as dicyclohexylamine, N-methyl-D-glucamine and the like. Non-toxic physiologically acceptable. . . in human fibroblasts (example 2), as well as by inhibition of the contraction of a rat stomach strip induced by phospholipase A2 (Example 3). The obtained results show a significant inhibiting activity of the synthetic peptide of the present invention. The. . . activity has been determined by means of the inhibition assay of the oedema in rat paw induced by the the phospholipase A2 (example 4) and by carrageenin (example 5). The obtained results show, in both models, that the synthetic peptide (I). . .

8. 5,190,864, Mar. 2, 1993, Enzyme amplification by using free enzyme to release enzyme from an immobilized enzyme material; Roger W. Giese, et al., 435/41, 4, 7.9, 7.92, 174, 176, 177, 178, 181, 183 [IMAGE AVAILABLE]

US PAT NO: 5,190,864 [IMAGE AVAILABLE] L5: 8 of 26
DETDESC:

DETD(6)

Bean Nuclease

Nuclease S1

2. Proteases

(a) Sulfhydryl Proteases
Protein

papain

streptococcal proteinase

(b) Metal Chelator-Sensitive Protease

B. subtilis protease

B. thermoproteolyticus protease

(c) Others

collagenase

thrombin

staph. aureus. . . pancreatic

bacterial

plant

- (c) Lysozyme
egg white
phage
- (d) Galactosidase

4. Lipases

- (a) Phospholipase Phospholipid
- (b) Lipase Triglyceride

B. Enzyme-Like Substances

1. Metal Chelates

- (a) Bleomycin-Fe(III)
DNA
- (b) EDTA-Fe(II) DNA
- (c) 1,10-phenanthroline-Cu(I)
DNA

9. 5,120,647, Jun. 9, 1992, Phospholipase A.sub.2 inhibitor; Tadashi Yoshida, et al., 435/119, 118, 126, 135, 146, 158, 252.1 [IMAGE AVAILABLE]

US PAT NO: 5,120,647 [IMAGE AVAILABLE] L5: 9 of 26

ABSTRACT:

A . . . R.sup.2, and R.sup.3 are --COOR.sup.4, --COOR.sup.5, and --COOR.sup.6, respectively; R.sup.4, R.sup.5, and R.sup.6 each is hydrogen, lower alkyl, or alkali metal ; W is hydroxyl; X, Y, and Z each is hydrogen or hydroxyl; a dotted line indicates the presence or absence. . . or where W/R.sup.3, X/R.sup.1, and/or Z/R.sup.3 may be combined together, a lactone is formed, which compound is useful as a phospholipase A.sub.2 inhibitor. Process for the production of the compound (I) and a cell culture of a microorganism *Circinotrichum falcatisporum* RF-641. . .

10. 5,099,034, Mar. 24, 1992, Phospholipase A.sub.2 inhibitor; Tadashi Yoshida, et al., 549/265; 435/118, 126, 131, 135, 144, 145; 549/314, 318; 560/180, 181, 182; 562/579, 590, 594, 595 [IMAGE AVAILABLE]

US PAT NO: 5,099,034 [IMAGE AVAILABLE] L5: 10 of 26

ABSTRACT:

A . . . R.sup.2, and R.sup.3 are --COOR.sup.4, --COOR.sup.5, and --COOR.sup.6, respectively; R.sup.4, R.sup.5, and R.sup.6 each is hydrogen, lower alkyl, or alkali metal ; W is hydroxyl; X, Y, and Z each is hydrogen or hydroxyl; a dotted line indicates the presence or absence. . . or where W/R.sup.3, X/R.sup.1, and/or Z/R.sup.3 may be combined together, a lactone is formed, which compound is useful as a phospholipase A.sub.2 inhibitor. Process for the production of the compound (I) and a cell culture of a microorganism *Circinotrichum falcatisporum* RF-641. . .

11. 5,091,527, Feb. 25, 1992, Substrate for phospholipase; Martina Junius, et al., 544/102; 548/414, 484; 549/5, 7, 11, 33; 558/32, 169, 180 [IMAGE AVAILABLE]

US PAT NO: 5,091,527 [IMAGE AVAILABLE] L5: 11 of 26

SUMMARY:

BSUM(52)

As . . . agents in the scope of the present invention, those are used which do not impair the enzymatic activity of the phospholipase to be determined. Alkali metal azides are especially appropriate, particularly sodium azide. Other preserving agents, for example thiozide and other sulphur-containing preserving agents, can, however,. . .

12. 5,068,198, Nov. 26, 1991, Liquid single reagent for assays involving confining gels; Ian Gibbons, et al., 436/535; 435/7.1, 7.2, 7.5; 436/519, 520, 522, 529, 531, 829 [IMAGE AVAILABLE]

US PAT NO: 5,068,198 [IMAGE AVAILABLE]
SUMMARY:

L5: 12 of 26

BSUM(67)

Exemplary . . . the like. Confinement by phospholipid liposomes and cell membranes can be reversed with polypeptides such as melittin, enzymes such as phospholipase , multicharged metal ions such as Cu.sup.++ and Mg.sup.++. Cell membranes will release their contents by osmotic shock. Liposomes, cell membranes, and gels. . .

13. 5,051,499, Sep. 24, 1991, Novel nucleoside-phospholipid conjugate; Satoshi Shuto, et al., 536/26.8, 28.55 [IMAGE AVAILABLE]

US PAT NO: 5,051,499 [IMAGE AVAILABLE]
SUMMARY:

L5: 13 of 26

BSUM(22)

A preferred example of phospholipase D-P in phospholipase D-P obtained by culturing a broth of Streptomyces sp. AA586 FERM P-6100 (Japan Pat. Unexam. Publ. No. 58-152481, Toyo Jozo Co., Catalog No. P-39). The amount of catalyst is at least 0.01 unit phospholipase D-P per 0.001 mole of phospholipid, and is preferably 1-100 units. Examples of a suitable solvent are two-phase systems of. . . buffer solution of pH 3-9, preferably pH 4-6. A general example of a water soluble salt for generation of a metal ion is calcium chloride. Reaction temperature is generally 20.degree.-60.degree. C. and reaction time is 30 minutes to 30 hours, preferably. . .

14. 5,028,447, Jul. 2, 1991, Process for the preparation of a water and oil emulsion; Bert Schenk, 426/605, 607, 613 [IMAGE AVAILABLE]

US PAT NO: 5,028,447 [IMAGE AVAILABLE]
DETDESC:

L5: 14 of 26

DETD(15)

in which the egg yolk was modified with phospholipase A to a degree of conversion of 70%, was prepared by gelatinising the native wheat starch together with the guar. . . stirring with the modified egg yolk and finally the oil was added and the final mixture was homogenized in a colloid mill, upon which a mild dressing (pH=4.1) without preservatives was obtained, which after filling into glass jars and upon storage. . .

15. 4,976,984, Dec. 11, 1990, Edible oil/fat compositions; Takuji Yasukawa, et al., 426/602, 33 [IMAGE AVAILABLE]

US PAT NO: 4,976,984 [IMAGE AVAILABLE]
SUMMARY:

L5: 15 of 26

BSUM(35)

Phospholipids, . . . The first method is: natural lecithins, such as, soybean lecithin, are subjected to the action of a catalyst, such as, phospholipase D or A.sub.2, to decompose selectively phosphatidyl choline and phosphatidyl ethanolamine, thus reducing the contents of these components, and, at the same time, increasing the contents of phosphatidic acid and/or of its salts with alkali metal , alkaline earth metal , trivalent metal and ammonium radical, and the contents of lysophosphatidic acid and/or of its salts with alkali metal , alkaline earth metal , trivalent metal and ammonium radical. The second method is: natural lecithins are subjected to transphosphatidilation in the presence of a catalyst, phospholipase D, to reduce the contents of phosphatidyl choline (PC), phosphatidyl ethanolamine (PE), and phosphatidyl serine (PS), and increase the contents. . .

16. 4,937,188, Jun. 26, 1990, Enzyme activity amplification method for increasing assay sensitivity; Roger W. Giese, et al., 435/41, 4, 7.9, 7.92, 174, 177, 181, 288, 962, 966 [IMAGE AVAILABLE]

US PAT NO: 4,937,188 [IMAGE AVAILABLE] L5: 16 of 26
DETDESC:

DETD(6)

. . .

Mung Bean Nuclease

Nuclease S1

2. Proteases (a) Sulfhydryl Proteases
Protein

papain

streptococcal proteinase

(b) Metal Cheator-Sensitive
Protease

B. subtilis protease

B. thermoproteolyticus

protease

(c) Others
collagenase
thrombin

. . .

pancreatic

bacterial

plant

(c) Lysozyme
egg white
phage

(d) Galactosidase

4. Lipases (a) Phospholipase Phospholipid

(b) Lipase Triglyceride

B. Enzyme-Like Substances

1. Metal (a) Bleomycin-Fe(III)

DNA

Chelates (b) EDTA-Fe(III) DNA

(c) 1,10-phenanthroline-Cu(I)
DNA

17. 4,921,951, May 1, 1990, Nucleoside-phospholipid conjugate; Satoshi Shuto, et al., 536/26.5, 26.1, 26.7, 26.8; 544/276 [IMAGE AVAILABLE]

US PAT NO: 4,921,951 [IMAGE AVAILABLE] L5: 17 of 26
SUMMARY:

BSUM(22)

A preferred example of phospholipase D-P is phospholipase D-P obtained by culturing a broth of Streptomyces sp. AA586 FERM P-6100 (Japan Pat. Unexam. Publ. No. 58-152481, Toyo Jozo Co., Catalog No. P-39). The amount of catalyst is at least 0.01 unit phospholipase D-P per 0.001 mole of phospholipid, and is preferably 1-100 units. Examples of a suitable solvent are two-phase systems of . . . buffer solution of pH 3-9, preferably pH 4-6. A general example of a water soluble salt for generation of a

metal ion is calcium chloride. Reaction temperature is generally 20.degree.-60.degree. C. and reaction time is 30 minutes to 30 hours, preferably. . .

18. 4,921,757, May 1, 1990, System for delayed and pulsed release of biologically active substances; Margaret A. Wheatley, et al., 428/402.2; 264/4.3; 424/94.3, 418, 419, 450, 485, 488; 436/829; 514/963, 965 [IMAGE AVAILABLE]

US PAT NO: 4,921,757 [IMAGE AVAILABLE] L5: 18 of 26
PARENT-CASE:

This . . .

stimuli such as pH, temperature and light or to be susceptible to degradation by a particular enzyme such as a phospholipase which is entrapped within the liposomes or enclosed in the permeable matrix. The encapsulated liposomes may also be sonicated under. . . the liposomes may also be by exposure to an agent such as a detergent, high ionic strength solution, or bivalent metal . The liposomes may be co-encapsulated with additional biologically active substances which are not entrapped within the liposomes. This provides an. . .

19. 4,900,556, Feb. 13, 1990, System for delayed and pulsed release of biologically active substances; Margaret A. Wheatley, et al., 424/450; 514/963 [IMAGE AVAILABLE]

US PAT NO: 4,900,556 [IMAGE AVAILABLE] L5: 19 of 26
SUMMARY:

BSUM(15)

The . . . such as pH, temperature and light or to be susceptible to degradation by a particular encapsulated enzyme such as a phospholipase . The encapsulated liposomes may also be sonicated under various conditions that will cause disruption of different proportions of liposomes. Disruption. . . the liposomes may also be by exposure to an agent such as a detergent, high ionic strength solution, or bivalent metal . The liposomes may be co-encapsulated with additional biologically active substances which are not entrapped within the liposomes. This provides an. . .

CLAIMS:

CLMS(1)

We . . .

encapsulated liposomes to a specific stimulus selected from the group consisting of pH, sonication, temperature, high ionic strength solutions, bivalent metals , detergents, phospholipases , and light.

CLAIMS:

CLMS(10)

10. . . . permeability, stability, and sensitivity to stimuli selected from the group consisting of pH, sonication, temperature, high ionic strength solutions, bivalent metals , detergents, phospholipases , and light, such that exposure to a stimulus effects release of the entrapped substance from the liposomes, and, encapsulating the substance-containing. . .

CLAIMS:

CLMS(15)

15. . . .

stability, and sensitivity to specific stimuli selected from the group consisting of pH, sonication, temperature, high ionic strength solutions, bivalent metals, detergents, phospholipases, and light, such that exposure to a stimulus effects release of the entrapped substance from the liposomes, wherein the permeability.

20. 4,868,106, Sep. 19, 1989, Analytical element and method for determining a component in a test sample; Tsukasa Ito, et al., 435/7.7; 422/56, 57; 435/7.5, 7.71, 7.72, 7.8, 7.92, 7.94, 805, 968; 436/501, 518, 524, 527, 528, 529, 530, 531, 800, 810, 827, 828 [IMAGE AVAILABLE]

US PAT NO: 4,868,106 [IMAGE AVAILABLE] L5: 20 of 26

DETDESC:

DETD(10)

. . .

2.7.5.1. Phosphoglucomutase

3.1.1.7. Choline esterase

3.1.1.8. Pseudocholinesterase

3.1.3.1. Alkali phosphatase

3.1.3.2. Acid phosphatase

3.1.3.9. Glucose-6-phosphatase

3.1.3.11. Fructosediphosphatase

3.1.4.1. Phosphodiesterase

3.1.4.3. Phospholipase C

3.2.1.1. .alpha.-Amylase

3.2.1.2. .beta.-Amylase

3.2.1.4. Cellulase

3.2.1.17. Muramidase

3.2.1.18. Neuraminidase

3.2.1.21. .beta.-Glycosidase

3.2.1.23. .beta.-Galactosidase

3.2.1.31. .beta.-Glucuronidase

3.2.1.35. Hyaluronidase

3.2.2.5. . . .

Bestathine

Pyridoxalphosphoric acid

Hydrazine and its derivatives

Nitrofur and its derivatives

Nitrobenzene and its derivatives

Purine derivatives

Chelating agents

Heavy metal ions

Mercury compounds, etc.

4. Coenzyme, prosthetic group

FAD (flavine adenine dinucleotide)

FMN (flavine mononucleotide)

Heme

S-adenosylmethionine

THF (tetrahydrofolic acid). . .

21. 4,818,537, Apr. 4, 1989, Liposome composition for treating dry eye; Luke S. S. Guo, 424/450, 1.21, 427; 428/402.2; 436/829; 514/915 [IMAGE AVAILABLE]

Ale 155:MEDLINE(R) 1966-1995/Sep W1
(c) format only 1995 Knight-Ridder Info

Set Items Description

--- -----

?s platelet(w)activating(w)factor or pag

s platelet(w)activating(w)factor or paf

67498 PLATELET

24690 ACTIVATING

269904 FACTOR

6422 PLATELET(W)ACTIVATING(W)FACTOR

976 PAG

S1 7395 PLATELET(W)ACTIVATING(W)FACTOR OR PAG

?

67498 PLATELET

24690 ACTIVATING

269904 FACTOR

6422 PLATELET(W)ACTIVATING(W)FACTOR

4734 PAF

S2 6961 PLATELET(W)ACTIVATING(W)FACTOR OR PAF

?s s2 and toxic?

6961 S2

206553 TOXIC?

S3 386 S2 AND TOXIC?

?s platelet(w)activating(w)factor/ti or paf/ti

26706 PLATELET/TI

5833 ACTIVATING/TI

87356 FACTOR/TI

2936 PLATELET/TI(W)ACTIVATING/TI(W)FACTOR/TI

1395 PAF/TI

S4 3835 PLATELET(W)ACTIVATING(W)FACTOR/TI OR PAF/TI ?s s4 and toxic?/ti

3835 S4

42768 TOXIC?/TI

S5 5 S4 AND TOXIC?/TI

?t s5/6/1-5

5/6/1

08533152 93243152

Are leukotrienes or ***PAF*** involved in hyperbaric oxygen ***toxicity***?

5/6/2

07785257 91304257

PAF, cytokines, ***toxic*** oxygen products and cell injury.

5/6/3

06401302 88046302

Pharmacological manipulation of ***platelet***-***activating*** ***factor*** ***toxicity*** in

rodents.

5/6/4

06373859 88018859

Protective effect of a ***PAF***-acether antagonist, BN 52021, in trichothecene ***toxicosis***.

5/6/5

05157069 84081069

Glucocorticoid protection against ***PAF***-acether ***toxicity*** in mice.

?t s5/7/3

5/7/3

DIALOG(R)File 155:MEDLINE(R)

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06401302 88046302

Pharmacological manipulation of ***platelet***-***activating*** ***factor*** ***toxicity*** in rodents.

Myers A; Duarte AP; Ramwell P

Department of Physiology and Biophysics, Georgetown University Medical Center, Washington, D.C. 20007.

Adv Prostaglandin Thromboxane Leukot Res (UNITED STATES) 1987, 17B p833-7, ISSN 0732-8141
Journal Code: 2PC

Contract/Grant No.: HL31498

Languages: ENGLISH

Document type: JOURNAL ARTICLE

?s s4 and toxic?

3835 S4

206553 TOXIC?

S6 227 S4 AND TOXIC?

?t s6/6/1-50

?t s6/7/38

6/7/38

DIALOG(R)File 155:MEDLINE(R)

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08877225 94192225

Systemic and regional hemodynamic changes during endotoxin or ***platelet*** ***activating*** ***factor*** (***PAF***)-induced shock in rats.

Mulder MF; van Lambalgen AA; van Kraats AA; Scheffer PG; Bouman AA; van den Bos GC; Thijs LG
Laboratory for Physiology, Free University Hospital, Free University, Amsterdam, The Netherlands.

Circ Shock (UNITED STATES) Dec 1993, 41 (4) p221-9, ISSN 0092-6213 Journal Code: C9Y

Languages: ENGLISH

Document type: JOURNAL ARTICLE

To evaluate the role of platelet activating factor (PAF) during endotoxin shock, we compared its effects with those of endotoxin. We measured arterial pressure (MAP), heart rate (HR), cardiac output

(CO; thermodilution), arterial lactate (Calact), organ blood flow (radioactive microspheres), and organ vascular resistance in four groups of anesthetized (pentobarbital) male Wistar rats (n = 7 per group), infused from t = 0 to t = 60 min with saline (group C: time matched control), endotoxin Escherichia coli O127:B8, 8 mg.kg-1 (group E), a "low PAF dose" (1 microgram.kg-1) to cause the same decrease in MAP as in group E (group PL), or a "high PAF dose" (3 micrograms.kg-1) to cause the same decrease in CO as in group E (group PH). At t = 60 min, MAP had decreased by 33% in E and PL, and by 55% in PH group. CO had decreased by 41% in the E and PH group. Calact had increased in the E and PH group by 300 and 200%, respectively. In the E, PL and PH group, coronary vascular resistance decreased. In the splanchnic organs, endotoxin caused a decrease in blood flow due to vasoconstriction, whereas PAF (both concentrations) caused vasodilation (except for spleen). Renal vascular resistance decreased (P < 0.05) in the PL group. In all groups, vascular resistance had increased (P < 0.05) in skin, and not changed in skeletal muscle (P < 0.05). Thus, hemodynamic changes after PAF infusion were partially similar to those after endotoxin infusion (coronary vasodilation and vasoconstriction in spleen and skin).(ABSTRACT TRUNCATED AT 250 WORDS)
?t s6/6/51-100

?t s6/7/74,84,96,97

6/7/74

DIALOG(R)File 155:MEDLINE(R)

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08361422 93071422

Actions of nitric oxide on the acute gastrointestinal damage induced by ***PAF*** in the rat.

Boughton-Smith NK; Deakin AM; Whittle BJ

Department of Pharmacology, Wellcome Research Laboratories, Beckenham, Kent, UK.

Agents Actions (SWITZERLAND) 1992, Spec No pC3-9, ISSN 0065-4299 Journal Code: 2XZ

Languages: ENGLISH

Document type: JOURNAL ARTICLE

The actions of nitric oxide (NO) on the acute gastrointestinal damage induced by platelet-activating factor (PAF) have been investigated in the rat. S-nitroso-N-acetyl penicillamine, which spontaneously generates NO, dose-dependently inhibited PAF-induced gastrointestinal plasma leakage, a measure of the initiation of vascular damage. The inhibitor of NO synthase, NG-monomethyl-L-arginine substantially potentiated gastrointestinal damage and plasma leakage induced by E. coli endotoxin, but had no effect on that induced by intravenous infusion of PAF. Endogenous NO may thus have a protective role in the gastrointestinal vascular that can be mimicked by generators of NO. The protection afforded by endogenous NO may, however, be dependent on the nature of the inflammatory stimulus used to induce gastrointestinal damage.

6/7/84

DIALOG(R)File 155:MEDLINE(R)

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08235020 92373020

Role of complement in endotoxin/***platelet***-***activating*** ***factor***-induced lung injury.

Rabinovici R; Yeh CG; Hillegass LM; Griswold DE; DiMartino MJ; Vernick J; Fong KL; Feuerstein G

Department of Surgery, Jefferson Medical College, Philadelphia, PA 19107-5083.

J Immunol (UNITED STATES) Sep 1 1992, 149 (5) p1744-50, ISSN 0022-1767 Journal Code:

IFB

Languages: ENGLISH

Document type: JOURNAL ARTICLE

C receptor-1 is a protein involved in the regulation of C3 and C5-convertases. Recombinant human soluble C receptor-1 has recently been produced and shown to reduce infarct size in a rat model of

myocardial ischemia/reperfusion injury. The present study aimed to investigate whether recombinant human soluble C receptor-1 exerts any protective effect on pulmonary injury produced in a rodent model of adult respiratory distress syndrome. In this model, Escherichia coli endotoxin (LPS, 0.1 microgram/kg) combined with platelet-activating factor (1 pmol/kg/min over 60 min, n = 10) caused microvascular lung injury characterized by elevation of myeloperoxidase activity, deposition of C3 and C5b-9 on the endothelium of pulmonary vessels, and pulmonary edema. Furthermore, bronchoalveolar lavage revealed increased neutrophil count and elevated protein concentration. These pulmonary responses were associated with elevated serum TNF-alpha. Pretreatment (10 min, i.v.) with recombinant human soluble C receptor-1 at 10 mg/kg (n = 13), but not at 1 mg/kg, prevented the LPS/platelet-activating factor-induced pulmonary edema (p less than 0.01) and changes in the bronchoalveolar lavage fluid cell count (p less than 0.01) and protein concentration (p less than 0.05), and attenuated the deposition of C3 and C5b-9 to lung vessels. There was no effect on lung myeloperoxidase activity and serum TNF-alpha. Also, C depletion by cobra venom factor (500 U/kg, i.v.) eliminated the pulmonary edema and elevated leukocyte count in bronchoalveolar lavage fluid, but had no effect on lung myeloperoxidase activity and serum TNF-alpha. These data suggest that C factors may play an important role in the pathophysiology of adult respiratory distress syndrome.

6/7/96

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1995 Knight-Ridder Info. All rts. reserv.

08172179 92310179

Platelet ***activating*** ***factor*** induced respiratory mucosal damage.

Hisamatsu K; Ganbo T; Nakazawa T; Murakami Y

Department of Otorhinolaryngology, Yamanashi College of Medicine, Japan. Lipids (UNITED STATES)
Dec 1991, 26 (12) p1287-91, ISSN 0024-4201 Journal Code: L73

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Human sinus mucosal specimens from eight normal individuals were exposed to platelet activating factor (PAF) at concentrations ranging from $10(-6)$ M to $10(-11)$ M in a humidified CO₂ chamber at 37 degrees C. The mucosal surface of the specimens was recorded on video tapes and magnified 2,500 times on a 19-inch television (TV) monitor. Ciliary activity of each ciliated cell was photoelectrically measured on the TV monitor in real time. PAF induced mucosal damage which resulted in a coarse profile including ciliostasis and exfoliation of epithelial cells. The length of the incubation period in which the initial coarse profile occurred on the mucosal surface inversely correlated with the concentration of exposed PAF ranging from $10(-6)$ M to $10(-10)$ M with $r = -0.712$ (p less than $2 \times 10(-4)$). Both the control medium and $10(-8)$ M lysoPAF showed no effect on ciliary activity or mucosal surface alteration even after 24 hr of exposure. Significant ciliary inhibition was noted after 6 hr of exposure to PAF at concentrations of $10(-8)$ M and $10(-10)$ M (p less than 0.05). After 10 hr of exposure, significant ciliary inhibition (p less than 0.01) was noted at all concentrations. Inhibition occurred in a time- and dose-dependent manner. The length of the incubation period in which initial ciliostasis occurred and the level of PAF concentration showed an inverse correlation with $r = -0.918$ (p less than $10(-6)$). These results indicate that PAF is cytotoxic to human respiratory mucosa.

6/7/97

DIALOG(R)File 155:MEDLINE(R)

(c) format only 1995 Knight-Ridder Info. All rts. reserv.

08172171 92310171

Cardiovascular effects of ***platelet***.***activating*** ***factor***. Goldstein RE; Feuerstein GZ; Bradley LM; Stambouly JJ; Laurindo FR; Davenport NJ

Department of Medicine, Uniformed Services University of the Health Sciences, Bethesda, Maryland
20814-4799.

Lipids (UNITED STATES) Dec 1991, 26 (12) p1250-6, ISSN 0024-4201 Journal Code: L73

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL Sudden release of platelet-activating factor (PAF) into the circulation can cause hypotension, tachycardia, and circulatory collapse. To further examine this response, we performed detailed studies of cardiovascular function after PAF administration to young domestic pigs and newborn piglets. Our results indicate that circulatory dysfunction after PAF reflects severe constriction of pulmonary resistance vessels and consequent acute right ventricular failure. Although PAF-induced coronary artery constriction and contractile depression may be complicating problems, left ventricular underperfusion and dysfunction after PAF are mainly the result of systemic arterial hypotension and diminished left ventricular filling. The adverse hemodynamic effects of PAF are accompanied by substantial release of thromboxane A₂ (TxA₂). These effects are mimicked by the TxA₂ agonist U-46619 and partially blocked by specific and nonspecific inhibitors of TxA₂ synthesis (OKY-046 and indomethacin). Even more potent blockade of PAF action is exerted by the TxA₂ receptor blocker, SQ 29,548. Taken together, these findings indicate that severe pulmonary vascular constriction and hemodynamic collapse soon after intravenous PAF are at least partially mediated by PAF-induced TxA₂ release. Tachyphylaxis to PAF influence has been observed in studies of leukocyte and platelet function. We hypothesized that tachyphylaxis to PAF might also occur in our studies of constrictor responses in pulmonary vessels. Recently, we have examined the capacity of PAF to produce sustained pulmonary vasoconstriction in open-chested, anesthetized newborn piglets. Infusions sufficient to produce 100% increase in mean pulmonary artery pressure after 3 min showed no loss of efficacy when sustained for 30 min.(ABSTRACT TRUNCATED AT 250 WORDS) (26 Refs.)

?logoff hold

US PAT NO: 4,818,537 [IMAGE AVAILABLE] L5: 21 of 26
DETDESC:

DETD(19)

The . . . lipid hydrolysis in the liposomes, and contribute to bacteriostatic action. The inhibition of lipid hydrolysis is due to inhibition of phospholipase A.sub.2, which may be present in the suspension as a contaminant, and which requires calcium as a cofactor. The bacteriostatic action of the chelator is related to sequestering of metals in a non-utilizable form.

22. 4,409,200, Oct. 11, 1983, Reverse transcriptase from human milk, method for its purification, and its use in the detection of breast cancer; William F. Feller, et al., 436/516; 435/7.1, 7.23, 7.92, 7.93, 15; 436/530, 531, 542 [IMAGE AVAILABLE]

US PAT NO: 4,409,200 [IMAGE AVAILABLE] L5: 22 of 26
DETDESC:

DETD(6)

In order to remove the membrane, dithiothreitol (DDT) or any other sulfhydryl-containing reducing agent is added together with a phospholipase enzyme (for example, phospholipase C, available commercially) to the milk concentrate. The solution is incubated for a few minutes, preferably 2 minutes, at about. . . 1.5 volume parts of 25% metrazamide (.rho. > 1.18), 1.0 volume parts of 18% metrazamide (.rho. > 1.10) in a buffer containing an alkali metal halide salt such as sodium chloride, and a metal chelating agent, such as EDTA. This buffer is at a pH between 7.5 and 9.0, preferably at a pH of. . .

23. 4,154,815, May 15, 1979, Zinc and enzyme toothpowder dentifrice; Morton Pader, 424/50 [IMAGE AVAILABLE]

US PAT NO: 4,154,815 [IMAGE AVAILABLE] L5: 23 of 26
SUMMARY:

BSUM(60)

It is well known that the activities of some enzymes, for example gluconolactonase, phosphoglycollate phosphatase, phospholipase C, carnosinase, ureidosuccinase, variously are enhanced by the presence of metal cations such as zinc, calcium, barium, magnesium, manganese, cobalt, lithium, cerium, and chromium, and that these cations either are found. . .

24. 4,152,418, May 1, 1979, Zinc and enzyme mouthwash and mouthwash concentrate for reducing dental plaque and calculus formation; Morton Pader, 424/50 [IMAGE AVAILABLE]

US PAT NO: 4,152,418 [IMAGE AVAILABLE] L5: 24 of 26
SUMMARY:

BSUM(60)

It is well known that the activities of some enzymes, for example gluconolactonase, phosphoglycollate phosphatase, phospholipase C, carnosinase, ureidosuccinase, variously are enhanced by the presence of metal cations such as zinc, calcium, barium, magnesium, manganese, cobalt, lithium, cerium, and chromium, and that these cations either are found. . .

25. 4,082,841, Apr. 4, 1978, Dentifrice; Morton Pader, 424/50, 52 [IMAGE AVAILABLE]

US PAT NO: 4,082,841 [IMAGE AVAILABLE]
SUMMARY:

L5: 25 of 26

BSUM(60)

It is well known that the activities of some enzymes, for example gluconolactonase, phosphoglycollate phosphatase, phospholipase C, carnosinase, ureidosuccinase, variously are enhanced by the presence of metal cations such as zinc, calcium, barium, magnesium, manganese, cobalt, lithium, cerium, and chromium, and that these cations either are found. . . .

26. 4,034,124, Jul. 5, 1977, Emulsions; Antonius Franciscus van Dam, 426/602; 252/308, 356; 426/589, 603, 605, 662 [IMAGE AVAILABLE]

US PAT NO: 4,034,124 [IMAGE AVAILABLE]

L5: 26 of 26

DETDESC:

DETD(34)

In this experiment salted fresh whole egg (90.6 % fresh whole egg, 8.7 % sodium chloride, 0.7 % sorbic acid) was treated with phospholipase A for 3 hrs at 55.degree. C. The enzyme concentration was about 0.003 %, based on whole egg. The modified whole egg was used to prepare, by means of a colloid mill, a mayonnaise of the following composition:

= > b

= > s (endotoxin# or lipopolysaccharide# or lps)(p)(colloid? or gold or metal#) 1796 ENDOTOXIN#

1218 LIPOPOLYSACCHARIDE#

1154 LPS

45337 COLLOID?

49599 GOLD

685918 METAL#

L6 130 (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID? OR GOLD OR METAL#)

= > s (endotoxin# or lipopolysaccharide# or lps)(p)(colloid?) 1796 ENDOTOXIN#

1218 LIPOPOLYSACCHARIDE#

1154 LPS

45337 COLLOID?

L7 26 (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID?)

= > d 17 1-26 cit kwic

1. 5,386,014, Jan. 31, 1995, Chemically modified hemoglobin as an effective, stable, non-immunogenic red blood cell substitute; Kwang Nho, et al., 530/385, 815 [IMAGE AVAILABLE]

US PAT NO: 5,386,014 [IMAGE AVAILABLE]

L7: 1 of 26

DETDESC:

DETD(72)

The P.sub.50 of the above PEG-bHb was 29 mm Hg (Table IV). Substitution degree was 20 %, colloid osmolality was 24 mm Hg, and the product was shown to be free of endotoxins (using the LAL test), pyrogens (using the U.S.P. pyrogen test) and free iron using the ferrozine assay method (Carter, 1971, . . .

DETDESC:

DETD(88)

The P.sub.50 of the above PEG-bHb was 32 mm Hg. Substitution degree was 10 percent, colloid osmolality was 22 mm Hg, and the product shown to be free of endotoxins, pyrogens, and free iron using methods described supra. Half-life of this example injected into rats after a 50 percent exchange. . .

2. 5,296,465, Mar. 22, 1994, Ultra pure hemoglobin solutions and blood-substitutes; Carl W. Rausch, et al., 514/6; 530/385 [IMAGE AVAILABLE]

US PAT NO: 5,296,465 [IMAGE AVAILABLE]

L7: 2 of 26

DETDESC:

DETD(84)

The . . . present invention is miscible with recipient blood and its components, is substantially non-toxic, non-antigenic, non-pyrogenic, and, especially, substantially free of endotoxins and other cell-bound and cell-free proteins. Its colloid -oncotic properties make the product especially useful for maintaining the level of the blood and plasma in the management of disease. . .

DETDESC:

DETD(256)

. . .
14.1; 10.4; 10.2; 11.6
8. PO.sub.2, Torr
147.5; 147.2; 147.0 147.2
9. P.sub.50, Torr
28.0; 28.0
10. Colloid Osmotic
20.7; 21.0; 20.9 20.9
Pressure, Torr
11. Sodium, mEq/L
114.6 113.9 115.1 114.5
12. Potassium, Eq/L. . . 3.70; 3.68
111.0; 208.4; 107.2; 108.9
13. Chloride, mEq/L
14. Phosphorus, ng %
0.097 0.097 0.097 0.097
15. Endotoxins , 0.29 0.19 0.23 0.23
EU/ml
16. Phospholipids, by absent
TLC
17. Polymerization, by column 85% above tetrameric form.. . .
3. 5,256,294, Oct. 26, 1993, Tangential flow filtration process and apparatus; Robert D. van Reis, 210/637, 137, 321.65, 641 [IMAGE AVAILABLE]

US PAT NO: 5,256,294 [IMAGE AVAILABLE]

L7: 3 of 26

DETDESC:

DETD(3)

The . . . being amenable to microfiltration techniques), as well as species of suitable size for ultrafiltration, including polypeptides, proteins, cellular components, DNA, colloids, mycoplasma, endotoxins, viruses, carbohydrates, and other molecules of biological interest, whether glycosylated or not.

DETDESC:

DETD(23)

Each . . . microns, more preferably 1 kDa to 10 microns. Examples of species that can be separated by ultrafiltration include proteins, polypeptides, colloids, mycoplasma, endotoxins, viruses, amino acids, DNA, RNA, and carbohydrates. Examples of species that can be separated by microfiltration include mammalian cells and. . .

4. 5,234,903, Aug. 10, 1993, Chemically modified hemoglobin as an effective, stable non-immunogenic red blood cell substitute; Kwang Nho, et al., 514/6; 530/385 [IMAGE AVAILABLE]

US PAT NO: 5,234,903 [IMAGE AVAILABLE] L7: 4 of 26

DETDESC:

DETD(80)

The P.sub.50 of the above PEG-bHb was 29mm Hg (Table IV). Substitution degree was 15%, colloid osmolality was 24 mm Hg, and the product was shown to be free of endotoxins (using the LAL test), pyrogens (using the U.S.P. pyrogen test) and free iron using the ferrozine assay method (Carter, 1971,. . .

DETDESC:

DETD(105)

The P.sub.50 of the above PEG-bHb was 32mm Hg. Substitution degree was 10 percent, colloid osmolality was 22mm Hg, and the product shown to be free of endotoxins, pyrogens, and free iron using methods described supra. Half-life of this example injected into rats after a 70 percent exchange. . .

5. 5,169,757, Dec. 8, 1992, Antibodies or antigens bound to a macroporous hydrophobic synthetic polymer cloth for immunological techniques; Hiroshi Yamazaki, et al., 435/7.92, 7.9, 7.93, 7.94, 180; 436/531, 544, 547, 823, 824; 530/413, 815 [IMAGE AVAILABLE]

US PAT NO: 5,169,757 [IMAGE AVAILABLE] L7: 5 of 26

SUMMARY:

BSUM(106)

The . . . difficult using microporous membranes, e.g., nylon or nitrocellulose, as in the prior art, which clog easily when large volumes of colloidal sample are filtered. On the other hand, the use of macroporous hydrophobic synthetic polymer cloth, e.g., polyester, as in the . . . experience little difficulty with clogging (i.e., macroporous polyester cloth has excellent flow characteristics). Also, because the ethylenediaminetetraacetate-heat treatment breaks the LPS antigens down into smaller units which react faster with antibody-cloth, it is possible to pass a large volume of sample. . .

6. 5,128,041, Jul. 7, 1992, Microporous membrane, method of manufacture, and method of use; Peter J. Degen, et al., 210/638, 490, 500.38, 651 [IMAGE AVAILABLE]

US PAT NO: 5,128,041 [IMAGE AVAILABLE] L7: 6 of 26
SUMMARY:

BSUM(19)

This . . . their enhanced filtration efficiency with a wide variety of contaminants including microparticulates, particularly very fine negatively charged particles, cellular debris, colloids, and endotoxins.

Membranes of the present invention are capable of delivering high resistivity effluent water rapidly after the initiation of filtration, typically. . .

7. 5,084,558, Jan. 28, 1992, Extra pure semi-synthetic blood substitute; Carl W. Rausch, et al., 530/385, 380, 384, 395, 413, 414, 415, 416, 417, 419 [IMAGE AVAILABLE]

US PAT NO: 5,084,558 [IMAGE AVAILABLE] L7: 7 of 26
DETDESC:

DETD(83)

The . . . present invention is miscible with recipient blood and its components, is substantially non-toxic, non-antigenic, non-pyrogenic, and, especially, substantially free of endotoxins and other cell-bound and cell-free proteins. Its colloid -oncotic properties make the product especially useful for maintaining the level of the blood and plasma in the management of disease. . .

DETDESC:

DETD(267)

. . .
10.2; 11.6

8. PO.sub.2, Torr
147.5; 147.2;
147.0 147.2

9. P.sub.50, Torr
28.0; 28.0

10. Colloid Osmotic
20.7; 21.0; 20.9 20.9
Pressure, Torr

11. Sodium, mEq/L 114.6 113.9 115.1 114.5

12. Potassium, Eq/L

. . .
13. Chloride, mEq/L
111.0; 208.4;
107.2;
108.9

14. Phosphorus, ng %
0.097 0.097 0.097 0.097

15. Endotoxins , EU/ml
0.29 0.19 0.23 0.23

16. Phospholipids, by absent
TLC

17. Polymerization, by column 85 % above tetrameric form.. . .

8. 5,075,228, Dec. 24, 1991, Recombinant clones of Chlamydia trachomatis lipopolysaccharide; Francis E. Nano, et al., 435/172.3, 5, 6, 7.1, 7.37, 69.3, 252.33, 320.1 [IMAGE AVAILABLE]

US PAT NO: 5,075,228 [IMAGE AVAILABLE] L7: 8 of 26
DETDESC:

DETD(8)

Surface immunofluorescence was also observed. Surface exposure of the chlamydial LPS epitope was shown on viable E. coli recombinants by immunoelectron microscopy. When viable pFEN207 cells were reacted with monoclonal antibody and protein A colloidal gold and then examined by electron microscopy without

subsequent fixation or staining, electron dense gold particles were specifically bound to the surfaces of the recombinant clone expressing the chlamydial LPS epitope.

9. H 875, Jan. 1, 1991, Toxin-encoding nucleic acid fragments derived from a *Bacillus thuringiensis* subsp. *israelensis* gene; David J. Ellar, et al., 435/252.31, 69.1, 172.3, 252.5, 832; 530/350, 858; 536/23.7, 23.71; 935/27, 60 [IMAGE AVAILABLE]

US PAT NO: H 875 [IMAGE AVAILABLE]

L7: 9 of 26

SUMMARY:

BSUM(6)

The nucleotide sequence of the 27 kDa δ -endotoxin has been reported in the literature. See, Waalwijk et al., *Nucleic Acids Res.*, 13: 8207-8217 (1985); Ward et al., J. . . et al. *Biochem. Biophys. Acta.*, 924: 509-518 (1987) that this protein shares a common cytolytic mechanism with other *B. thuringiensis* δ -endotoxins from other serotypes. Commentators in this field have theorized that these δ -endotoxins bind to receptors on the membrane, and subsequently interact with the membrane to create a hole or pore. The generation of these pores is thought to lead to colloid -osmotic lysis, where an inflow of ions is accompanied by water influx, which in turn causes cell swelling followed by lysis. . .

10. 4,900,679, Feb. 13, 1990, Method for determining the existence and/or the monitoring of a pathological condition in a mammal and a test kit therefor; Charles R. Spillert, et al., 436/69; 422/61, 73; 435/13; 436/64 [IMAGE AVAILABLE]

US PAT NO: 4,900,679 [IMAGE AVAILABLE]

L7: 10 of 26

DETDESC:

DETD(54)

TABLE VIII

Number of Samples			
Concentration		Endotoxin	
Saline		Immunomodulator	
		Category	
3	10 .mu.g/cc		
	6.43 .+-. 1.70		
	5.00 .+-. .85		
	5.23 .+-. .68		
. . .	.+-. .63		5.10 .+-. .87
		Myelin, protein, antigen	Myelin
Number of			
Final RT Saline		Endotoxin	
RT		RT Immunomodulator	
Samples			
Concentration			
	.+-. SD		
	.+-. SD	.+-. SD	Category

5 1 .mu.g/cc
 .56. . .
 4.80 .+- 1.14
 4.22 .+- 0.84*
 3.28 .+- 0.68
 Carrageenan - inflammatory
 mediator, colloid 9 400 .mu.g/cc Carrageenan
 4.80 .+- 1.14
 4.22 .+- 0.84*
 3.55 .+- .72
 Latex Beads,
 Latex. . . .+- .78*
 6.62 .+- 1.62
 Amine, intracellular
 chloride affects pH ammonium compartment modifier

*signifies RT endotoxin different than RT saline.
 signifies RT immunomodulator different than RT saline.

11. 4,885,168, Dec. 5, 1989, Method for the removal of nucleic acids and/or endotoxin; Masanori Hashimoto, et al., 424/520; 210/730; 514/2, 55; 536/20 [IMAGE AVAILABLE]

US PAT NO: 4,885,168 [IMAGE AVAILABLE] L7: 11 of 26

ABSTRACT:

Agent for the removal of nucleic acids and/or endotoxin from a liquid containing the nucleic acids and/or endotoxin and further useful substances (e.g. proteins, hormones, etc.), which comprises as an active ingredient a chitosan having a low molecular weight, particularly that having an intrinsic viscosity of 0.01 to 5 (dl/g) and further a colloid equivalent of not less than 2 meq/g of evaporated residue.

DETDESC:

DETD(2)

The . . . 0.01 (dl/g) or more than 5 (dl/g), they are inferior in the efficiency of the removal of nucleic acids and endotoxin. The low molecular chitosan has preferably a colloid equivalent (charge density) of not less than 2 meq/g of evaporated residue, more preferably not less than 4 meq/g of evaporated residue. When the colloid equivalent of the low molecular chitosan is less than 2 meq/g of evaporated residue, the low molecular chitosan must unfavorably. . .

DETDESC:

DETD(3)

The . . . and other known methods may be used in this invention, but for the purpose of effectively removing nucleic acids and/or endotoxin of this invention, the cleavage with hydrogen peroxide is particularly favorable because the colloid equivalent of the chitosan is little decreased. By controlling the concentration of hydrogen peroxide, there can be obtained the desired. . .

DETDESC:

DETD(14)

In . . . has an intrinsic viscosity of about 13 (dl/g)] is dissolved in a dilute acid, the solution becomes a viscous cationic colloidal solution, and hence it is difficult to prepare a high concentration of chitosan solution, and also because the solution of. . . equal to the volume of the liquid to be treated in order to exhibit the desired removal efficiency though the colloid equivalent is about 5 meq/g of evaporated

residue, and hence, it is not practically used in view of difficulty in . . . solution containing the chitosan in a high concentration, and the solution can give high removal efficiency for nucleic acids and/or endotoxin . Thus, the low molecular chitosan as used in this invention can be used in a very small amount for effective removal of nucleic acids and/or endotoxin . Accordingly, even in case of a cell extract which contains a large amount of impurities such as nucleic acids and/or endotoxin , the method of this invention can be used for the simultaneous removal of the impurities, and thereby the desired proteins. . .

12. 4,814,247, Mar. 21, 1989, Method for determining the existence and/or the monitoring of a pathological condition in a mammal; Charles R. Spillert, et al., 436/69; 422/61, 73; 435/13; 436/64 [IMAGE AVAILABLE]

US PAT NO: 4,814,247 [IMAGE AVAILABLE] L7: 12 of 26
DETDESC:

DETD(56)

TABLE VIII

Number of Samples			
Concentration			
Saline	Endotoxin	Immunomodulator	Catagory
<hr/>			
3	10 .mu.g/cc		
	6.43 .+- .170		
	5.00 .+- .85		
	5.23 .+- .68	Adjunct. . .	Myelin, protein, antigen
		Myelin	
<hr/>			
Number of Samples			
Final	RT	RT	RT
Concentration			
Saline	+-	SD	
Endotoxin	+-	SD	
Immunomodulator	+-	SD	
Catagory			
<hr/>			
5	1 .mu.g/cc		
	.56 .+- .1.33		
	5.10 .+- .1.92		
mu.g/cc		
	4.80 .+- .1.14		
	4.22 .+- .0.84*		
	3.28 .+- .0.68		
		Carrageenan - inflammatory	Carrageenan
mediator,	colloid	9	400 .mu.g/cc
	4.80 .+- .1.14		
	4.22 .+- .0.84*		
	3.55 .+- .72		
		Latex Beads,	Latex. . . .+- .78*
	6.62 .+- .1.62		

modifier	Amine, intracellular chloride affects pH.	ammonium	compartment
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*signifies RT endotoxin different than RT saline.
signifies RT immunomodulator different than RT saline.

13. 4,734,208, Mar. 29, 1988, Charge-modified microfiber filter sheets; David B. Pall, et al., 210/767, 504, 505, 509 [IMAGE AVAILABLE]

US PAT NO: 4,734,208 [IMAGE AVAILABLE] L7: 13 of 26

SUMMARY:

BSUM(12)

The . . . charge modified, resin coated inorganic microfibers prepared by mixing the inorganic microfibers with an aqueous solution of a water soluble, non- colloidal cationic thermosetting binder resin to form a microfiber dispersion, following which a precipitating agent (either anionic or non-ionic) is added. . . have enhanced particulate removal efficiencies and find use in applications requiring high levels of fine particulate removal including bacteria and endotoxins .

14. 4,705,628, Nov. 10, 1987, Immunoglobulin adsorbent and adsorption apparatus; Yuichi Yamamoto, et al., 210/289, 502.1; 502/402 [IMAGE AVAILABLE]

US PAT NO: 4,705,628 [IMAGE AVAILABLE] L7: 14 of 26

DETDESC:

DETD(6)

the classification by Roitt)* Autoimmune diseases
Autoantibodies

Class I (Organ-specific)

Hashimoto's disease, Primary myxedema

antithyroglobulin antibody,
secondary colloid antibody,
cytoplasmic microsome antibody,
cell surface antibody

thyrotoxicosis antibody for TSH receptor on thyroid
cell surface

Pernicious. . . antibody primary biliary cirrhosis
mitochondria antibody

active chronic hepatitis
smooth muscle antibody,
antinuclear antibody

ulcerative colitis colon lipopolysaccharide antibody

Sjogren's syndrome salivary duct antibody, mitochondria
antibody, antinuclear antibody
thyroid antibody, anti-IgG antibody

polyneuritis myelinic antibody

juvenile. . .

15. 4,612,302, Sep. 16, 1986, Clinical use of somatostatin analogues; Sandor Szabo, et al., 514/11, 806; 530/311; 930/20, 21, 160, 260, DIG.546, DIG.700 [IMAGE AVAILABLE]

US PAT NO: 4,612,302 [IMAGE AVAILABLE] L7: 15 of 26

SUMMARY:

BSUM(74)

The . . . as carriers of therapeutic agents and would be removed by the stimulated phagocytosis of the present invention. Other examples of colloidal particles against which the present invention can be used include endotoxins and synthetic toxins.

16. 4,610,790, Sep. 9, 1986, Process and system for producing sterile water and sterile aqueous solutions; Adrian R. Reti, et al., 210/636, 259, 295, 641, 651 [IMAGE AVAILABLE]

US PAT NO: 4,610,790 [IMAGE AVAILABLE] L7: 16 of 26
DETDESC:

DETD(2)

In . . . United States Pharmacopioial Convention Inc., pages 3012-3020, May-June, 1983. The standard includes a pyrogen content of less than 0.25 USP Endotoxin Units per ml. A filtration step precedes the reverse osmosis system to remove organics and any impurities such as chlorine. . . addition, the reverse osmosis module removes the bulk of the dissolved ionic contaminants and some other non-ionic dissolved solids including colloids, macromolecules and particulates thereby significantly reducing the requirements on the downstream deionization step. The deionization system functions to remove dissolved. . .

17. 4,569,926, Feb. 11, 1986, Stimulation of phagocytosis with somatostatin; Sandor Szabo, et al., 514/14, 806; 530/311; 930/160 [IMAGE AVAILABLE]

US PAT NO: 4,569,926 [IMAGE AVAILABLE] L7: 17 of 26
DETDESC:

DETD(6)

The . . . as carriers of therapeutic agents and would be removed by the stimulated phagocytosis of the present invention. Other examples of colloidal particles against which the present invention can be used include endotoxins and synthetic toxins.

18. 4,523,995, Jun. 18, 1985, Charge-modified microfiber filter sheets; David B. Pall, et al., 210/504, 505, 509 [IMAGE AVAILABLE]

US PAT NO: 4,523,995 [IMAGE AVAILABLE] L7: 18 of 26
SUMMARY:

BSUM(12)

The . . . charge modified, resin coated inorganic microfibers prepared by mixing the inorganic microfibers with an aqueous solution of a water soluble, non- colloidal cationic thermosetting binder resin to form a microfiber dispersion, following which a precipitating agent (either anionic or non-ionic) is added. . . have enhanced particulate removal efficiencies and find use in applications requiring high levels of fine particulate removal including bacteria and endotoxins.

19. 4,434,237, Feb. 28, 1984, Human leukocytic pyrogen test for the detection of exogenous fever-producing substances; Charles A. Dinarello, 436/542; 435/2, 29, 70.4; 436/63, 86, 543, 545, 804, 811, 815 [IMAGE AVAILABLE]

US PAT NO: 4,434,237 [IMAGE AVAILABLE] L7: 19 of 26
SUMMARY:

BSUM(29)

Although . . . is preferred. A difference between the Polymyxin B sample and the unknown sample would indicate the presence of a bacterial endotoxin infection of the unknown sample incubation. Other desirable controls include a sample containing cell suspension, unknown, and 2 to 15%, . . . virus; intact gram-positive bacteria, such as *Staphylococcus aureus*, *S. albus*, pneumococci, *Bacillus subtilis*, and *Listeria monocytogenes*; non-microbial particles, such as colloidal fat, glycogen, silica, and thorium dioxide; extracellular products from gram-positive bacteria, such as various protein antigens; gram-positive cell wall components, such as peptidoglycans containing N-acetylglucosamine and N-acetylmuramic acid; gram-negative organisms and their products, such as lipopolysaccharides (LPS); yeast cells, such as *Candida albicans* and *Saccharomyces cerevisiae*; soluble fungal products; mycobacteria; and spirochetes, such as *Borrelia hermsuu*. A. . .

20. 4,221,866, Sep. 9, 1980, Method for determining endotoxin concentration; Richard Cotter, 435/4, 34 [IMAGE AVAILABLE]

US PAT NO: 4,221,866 [IMAGE AVAILABLE] L7: 20 of 26

DETDESC:

DETD(10)

The . . . that so much detergent be added that the coagulated protein be converted into a true or molecular solution. Rather, a colloidal solution may be satisfactory so long as the protein aggregates are rendered substantially uniform by the detergent and there are. . . the above goals is ordinarily at least about 0.05 % by weight in the reaction product of the Limulus lysate and endotoxin -containing sample. The preferred amount when using sodium dodecyl sulfonate is about 0.16 %. The detergent concentration has no real upper limit. . .

DETDESC:

DETD(17)

The . . . of detergent and suspending agent perform the combined functions of increasing reaction product volume, dissolving coagulated Limulus protein, stabilizing the colloidal solution of the coagulated Limulus protein and quenching the endotoxin -activated Limulus enzyme responsible for the coagulation.

21. 4,221,865, Sep. 9, 1980, Method for determining endotoxin concentration; John A. Dubczak, et al., 435/4, 34 [IMAGE AVAILABLE]

US PAT NO: 4,221,865 [IMAGE AVAILABLE] L7: 21 of 26

DETDESC:

DETD(10)

The . . . that so much detergent be added that the coagulated protein be converted into a true or molecular solution. Rather, a colloidal solution may be satisfactory so long as the protein aggregates are rendered substantially uniform by the detergent and there are. . . the above goals is ordinarily at least about 0.05 % by weight in the reaction product of the Limulus lysate and endotoxin -containing sample. The preferred amount when using sodium dodecyl sulfonate is about 0.16 %. The detergent concentration has no real upper limit. . .

DETDESC:

DETD(17)

The . . . of detergent and suspending agent perform the combined functions of increasing reaction product volume, dissolving coagulated Limulus protein, stabilizing the colloidal solution of the coagulated Limulus protein and quenching the endotoxin -activated Limulus enzyme responsible for the coagulation.

22. 4,195,225, Mar. 25, 1980, Method for assaying endotoxins; Narbik A. Karamian, 250/373 [IMAGE AVAILABLE]

US PAT NO: 4,195,225 [IMAGE AVAILABLE] L7: 22 of 26
SUMMARY:

BSUM(2)

Endotoxins , which are commonly known as pyrogens, are substances produced by microorganisms growing in water or in aqueous solutions. They cause inflammation and general fever when injected intravenously. They are colloidal in nature and they persist even after the organisms which produce them are destroyed by sterilization.

23. 4,133,716, Jan. 9, 1979, Method for the biosynthesis of a microbial insecticide; Branimir Zamola, et al., 435/71.3; 424/93.461; 435/242, 832 [IMAGE AVAILABLE]

US PAT NO: 4,133,716 [IMAGE AVAILABLE] L7: 23 of 26
DETDESC:

DETD(28)

Based . . . is maintained within the range of 6.3 to 6.5. The submerged cultivation is continued until the spores and the crystalline endotoxin are yielded or transferred into the medium (35 to 40 hours on the average). The culture medium is subsequently placed. . . fermentator to receptacle A which is equipped with an agitator e and a dialysis diaphragm a. This diaphragm may be colloidal or of any type as customarily used in practical life. The dialysis takes place more rapidly if deionized water b. . . is determined by the afore-described bio-test. A powdery filling material is added to the resulting mixture of spores and crystalline endotoxins , and the mixture is then dried in a drying kiln on plates. The resulting product is ground in a crusher. . .

24. 4,093,381, Jun. 6, 1978, Method for assaying endotoxins; Narbik A. Karamian, 356/51; 250/373; 435/18, 38; 436/71, 94, 171 [IMAGE AVAILABLE]

US PAT NO: 4,093,381 [IMAGE AVAILABLE] L7: 24 of 26
SUMMARY:

BSUM(2)

Endotoxins , which are commonly known as pyrogens, are substances produced by microorganisms growing in water or in aqueous solutions. They cause inflammation and general fever when injected intravenously. They are colloidal in nature and they persist even after the organisms which produce them are destroyed by sterilization.

25. 3,853,771, Dec. 10, 1974, PROCESS FOR DISPERSING CELLULAR MICRO-ORGANISMS WITH CHELATING AQUEOUS ALKALINE SURFACTANT SYSTEMS; Ted S. Felmann, et al., 507/201; 166/305.1, 307, 311, 312; 507/241, 254, 261, 927 [IMAGE AVAILABLE]

US PAT NO: 3,853,771 [IMAGE AVAILABLE] L7: 25 of 26
DETDESC:

DETD(2)

The . . . with the bacterial destruct chemical, the outer two cell wall layers (which are essentially fatty material-containing biopolymers of lipoproteins and lipopolysaccharides) appear to be dispersed by the action of the surfactant (which may be a relatively long chain alcohol or alkoxylated. . . be ruptured, probably by osmotic pressure, so that the cellular materials are converted to water soluble and/or dispersible materials (e.g., colloidal macromolecules) that are dissolved or dispersed in the aqueous solution to form a fluid which can flow through relatively small. . .

26. 3,782,471, Jan. 1, 1974, DISPERSING CELLULAR-MICRO-ORGANISMS WITH CHELATING AQUEOUS ALKALINE SURFACTANT SYSTEMS; Ted S. Felmann, et al., 166/307; 507/241, 254, 929 [IMAGE AVAILABLE]

US PAT NO: 3,782,471 [IMAGE AVAILABLE] L7: 26 of 26
DETDESC:

DETD(2)

The . . . with the bacterial destruct chemical, the outer two cell wall layers (which are essentially fatty material-containing biopolymers of lipoproteins and lipopolysaccharides) appear to be dispersed by the action of the surfactant (which may be a relatively long chain alcohol or alkoxylated. . . be ruptured, probably by osmotic pressure, so that the cellular materials are converted to water soluble and/or dispersible materials (e.g., colloidal macromolecules) that are dissolved or dispersed in the aqueous solution to form a fluid which can flow through relatively small. . .

=> d his

(FILE 'USPAT' ENTERED AT 09:55:51 ON 30 JUN 95)

L1 6 S INTERLEUKIN?(P)COLLOID?
L2 1 S INTERLEUKIN?(P)(GOLD)
L3 32 S INTERLEUKIN?(P)(METAL?)
L4 5 S (LIPID(W)A)(P)(COLLOID? OR GOLD OR METAL#) L5 26 S
(PHOSPHOLIPASE?)(P)(COLLOID? OR GOLD OR METAL#) L6 130 S (ENDOTOXIN# OR
LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID? O R G
L7 26 S (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID?)
=> s l6 1-10 kwic
MISSING OPERATOR 'L6 1-10'

=> d l6 1-10 kwic

US PAT NO: 5,428,022 [IMAGE AVAILABLE] L6: 1 of 130
DETDESC:

DETD(7)

The . . . than 10% type III (as determined by SDS-PAGE) with the remainder type I. Salt content was less than 10%, heavy metals .ltoreq.20 ppm, carbohydrates < 10 .mu.g/mg collagen, and endotoxin concentration <0.3 endotoxin units/mi. This powder was dissolved in HCl, pH2, and desalted by ultrafiltration. The desalted collagen solution was prefiltered and sterile-filtered. . .

US PAT NO: 5,426,181 [IMAGE AVAILABLE] L6: 2 of 130
DETDESC:

DETD(180)

Finally, metallothionein II (MT-II) has been shown to be inducible by various stresses, including heavy metal challenge, injection of lipopolysaccharide as well as by cytokines including interferons and IL-1) (Karin, M., Cell 41:9-10 (1985)). In addition to its ability to bind heavy metal ions, MT-II may also act as a scavenger of free radicals released by activated macrophages and neutrophils during an inflammatory.

US PAT NO: 5,418,140 [IMAGE AVAILABLE]

L6: 3 of 130

DETDESC:

DETD(50)

3. Fuerst, J. A. and J. W. Perry, 1988, Demonstration of lipopolysaccharide on sheathed flagella of *Vibrio cholerae* 0:1 by protein A- gold immunoelectron microscopy. J. Bacteriol. 170:1488-1494.

US PAT NO: 5,407,825 [IMAGE AVAILABLE]

L6: 4 of 130

DETDESC:

DETD(56)

Two . . . isolated EcoRI fragments were ligated to LAMBDA ZAP.TM. EcoRI arms (Stratagene Cloning Systems, La Jolla, Calif.) and packaged using Gigapak GOLD .TM. (Stratagene) extracts. The packaged recombinant phage were plated with *E. coli* strain BB4 (Stratagene) to give high plaque density. The . . . approximate 3.0 Kb EcoRI insert and was sequenced using Stratagene's T7 and T3 primers plus a set of existing *B.t.* endotoxin gene oligonucleotide primers. About 1.8 Kb of the toxin gene was sequenced, and data analysis comparing PS81A2 to other cloned *B.t.* endotoxin genes showed that the PS81A2 sequence was unique. A synthetic oligonucleotide was constructed to one of the regions in the PS81A2 sequence that was least homologous relative to other exiting *B.t.* endotoxin genes.

DETDESC:

DETD(62)

Two . . . isolated EcoRI fragments were ligated to LAMBDA ZAP.TM. EcoRI arms (Stratagene Cloning Systems, La Jolla, Calif.) and packaged using Gigapak GOLD .TM. (Stratagene) extracts. The packaged recombinant phage were plated with *E. coli* strain BB4 (Stratagene) to give high plaque density. The . . . approximate 2.3 Kb EcoRI insert and was sequenced using Stratagene's T7 and T3 primers plus a set of existing *B.t.* endotoxin oligonucleotide primers. About 600 bp of the toxin gene was sequenced, and data analysis comparing PS81RR1 to other cloned *B.t.* endotoxin genes showed that the PS81RR1 sequence was unique. A synthetic oligonucleotide was constructed to one of the regions in the PS81RR1 sequence that was least homologous relative to other existing *B.t.* endotoxin genes.

US PAT NO: 5,401,644 [IMAGE AVAILABLE]

L6: 5 of 130

SUMMARY:

BSUM(26)

For certain uses, for example in cosmetics, it may be desirable to isolate a xanthan which is free of lipopolysaccharides, the pyrogenic activity of which is well known. It is known that, as *Xanthomonas* are Gram- bacteria, substantial amounts of lipopolysaccharides are released into the fermentation medium; they may be removed by precipitation, before precipitation of the non-viscous polysaccharide, by known techniques such as the addition of alkaline earth metal ions in a basic medium.

US PAT NO: 5,389,547 [IMAGE AVAILABLE]

L6: 6 of 130

ABSTRACT:

A . . . treatment without requiring separation of any denatured product precipitate. The reagent makes it possible to assay, in particular, .beta.-glucan and endotoxin in blood-derived samples rapidly and efficiently with high sensitivity. The reagent includes a hexadimethrine compound and an alkali metal hydroxide or an alkali metal hydroxide as a main component. A method for assaying a substance specifically reacting with a Limulus reagent utilizing the reagent,. . .

DETDESC:

DETD(18)

Thus, the present invention can provide a pretreating reagent system for use in assaying both endotoxin and .beta.-glucan (hereinafter also referred to as dual-purpose pretreating reagent system) which comprises at least the above-mentioned alkali metal hydroxide and hexadimethrine compound.

DETDESC:

DETD(25)

The pretreating reagent system to be used in assaying endotoxin in samples utilizing the Limulus reaction (pretreating reagent system for endotoxin assay) comprises a hexadimethrine compound and an alkali metal hydroxide, as mentioned above, and which further contains at least a nonionic or anionic surfactant and an alkaline earth metal halide.

DETDESC:

DETD(33)

The proportions of the hexadimethrine compound and alkali metal hydroxide in this pretreating reagent system for endotoxin assay can be adjusted in substantially the same respective ranges as mentioned above for the general-purpose pretreating reagent system. The . . . in a concentration, in the pretreating reagent system, within the range of 0.04 to 0.4% (weight/volume), and the alkaline earth metal halide in a concentration, in the pretreating reagent system, within the range of 0.005 to 0.05 mole/liter.

DETDESC:

DETD(222)

As . . . samples, such as plasma or serum samples, which contain factors interfering with the factor G system reaction or in assaying endotoxin in such samples which contain factors interfering with the factor C system reaction, the invention can entirely avert influences of. . . on the reaction system by employing simple means comprising treating the samples with a pretreating reagent system containing an alkali metal hydroxide and a hexadimethrine compound as essential constituents thereof. At the same time, the turbidity increase in test solutions after. . . the overall procedure can be curtailed. In addition, the assay method of the invention makes it possible to automatically assay endotoxin or .beta.-glucan in biological samples on microplates by the kinetic method and thus gives highly accurate and reproducible results rapidly. . .

CLAIMS:

CLMS(3)

3. The method as claimed in claim 1, wherein the substance detectable by the Limulus reaction is endotoxin and wherein the pretreating reagent further comprises a nonionic or anionic surfactant and an alkaline earth metal halide.

US PAT NO: 5,386,014 [IMAGE AVAILABLE]
DETDESC:

L6: 7 of 130

DETD(72)

The P.sub.50 of the above PEG-bHb was 29 mm Hg (Table IV). Substitution degree was 20%, colloid osmolality was 24 mm Hg, and the product was shown to be free of endotoxins (using the LAL test), pyrogens (using the U.S.P. pyrogen test) and free iron using the ferrozine assay method (Carter, 1971, . . .

DETDESC:

DETD(88)

The P.sub.50 of the above PEG-bHb was 32 mm Hg. Substitution degree was 10 percent, colloid osmolality was 22 mm Hg, and the product shown to be free of endotoxins, pyrogens, and free iron using methods described supra. Half-life of this example injected into rats after a 50 percent exchange. . .

US PAT NO: 5,386,013 [IMAGE AVAILABLE]
DETDESC:

L6: 8 of 130

DETD(176)

Finally, metallothionein II (MT-II) (=TSG-37) has been shown to be inducible by various stresses, including heavy metal challenge, injection of lipopolysaccharide as well as by cytokines including interferons and IL-1 (Karin, M., Cell 41:9-10 (1985)). In addition to its ability to bind heavy metal ions, MT-II may also act as a scavenger of free radicals released by activated macrophages and neutrophils during an inflammatory. . .

US PAT NO: 5,382,522 [IMAGE AVAILABLE]
SUMMARY:

L6: 9 of 130

BSUM(62)

Organic . . . etc. Other materials which can be employed as the insoluble support are silica gel, silicon wafers, glass, paper, insoluble protein, metals, metalloids, metal oxides, magnetic materials, semi-conductive materials, cermets or the like. In addition are included substances that form gels, i.e., proteins such as gelatins, lipopolysaccharides, silicates, agarose, polyacrylamides or polymers which form several aqueous phases such as dextrans, polyalkylene glycols (alkylene with 2 to 3. . .

US PAT NO: 5,382,515 [IMAGE AVAILABLE]
DETDESC:

L6: 10 of 130

DETD(36)

Organic . . . etc. Other materials which can be employed as the insoluble support are silica gel, silicon wafers, glass, paper, insoluble protein, metals, metalloids, metal oxides, magnetic materials, semi-conductive materials, cements or the like. In addition are included substances that form gels, i.e., proteins such as gelatins, lipopolysaccharides, silicates, agarose, polyacrylamides or polymers which form several aqueous phases such as dextrans, polyalkylene glycols (alkylene with 2 to 3. . .

=> s (interferon?)(p)(colloid? or gold or metal#)

2944 INTERFERON?
45337 COLLOID?

49599 GOLD
685918 METAL#

L8 82 (INTERFERON?)(P)(COLLOID? OR GOLD OR METAL#)

=> s (interferon?)(p)(colloid?)

2944 INTERFERON?

45337 COLLOID?

L9 16 (INTERFERON?)(P)(COLLOID?)

=> d l9 1-16 cit kwic

1. 5,357,636, Oct. 25, 1994, Flexible protective medical gloves and methods for their use; Karl P. Dresdner, Jr., et al., 2/161.7, 167, 168, 169 [IMAGE AVAILABLE]

US PAT NO: 5,357,636 [IMAGE AVAILABLE]

L9: 1 of 16

DETDISC:

DETD(39)

The . . . hydroxide, ammonia, ammonium hydroxide, lithium hydroxide, barium hydroxide, silver hydroxide, other metal hydroxides, sodium tetradecyl sulfate, sulfur dioxide, pentationic acid, colloidal sulfur, sulfurated potash, sublimed tyrothricin, hexachlorophene, hypochlorous acid, other chlorophors, acetic acid, hydrochloric acid, sulfuric acid, sodium acetate, aluminum acetate, . . . T, silver nitrate, ammoniacal silver nitrate solution, eugenol, elemental iodine, sodium iodide, potassium iodide, calcium iodide, ammonium iodide, silver iodide, colloidal silver iodide in gelatin, silver lactate, ferrous iodide, mercuric iodide red, mercuric oxide red, strontium iodide, lithium iodide, magnesium iodide, . . . propylene oxide, zinc pyrithione, zinc bacitracin, chlortetracycline hydrochloride, calcium chlortetracycline, oxytetracycline hydrochloride, beta-propiolactone, acyclovir, acyclovir sodium, amantadine hydrochloride, cytarabine, idoxuridine, interferon, gamma interferon, ribavirin, rifampin, suramin, trifluridine, vidarabine, zidovudine, methisazone, tumor necrosis factor, amplitgen, ansamycin, (E)-5-(2-bromovinyl-2'-deoxyuridine, butylated hydroxytoluene, castamospermine, dextran sulfate, dideoxycytidine, dideoxyadenosine, . . .

CLAIMS:

CLMS(5)

5. . . . magnesium hydroxide, calcium hydroxide, ammonia, ammonium hydroxide, lithium hydroxide, barium hydroxide, silver hydroxide, sodium tetradecyl sulfate, sulfur dioxide, pentationic acid, colloidal sulfur, sulfur, sulfurated potash, sublimed tyrothricin, hexachlorophene, hypochlorous acid, acetic acid, hydrochloric acid, sulfuric acid, sodium acetate, aluminum acetate, acetarsone, . . . T, silver nitrate, ammoniacal silver nitrate solution, eugenol, elemental iodine, sodium iodide, potassium iodide, calcium iodide, ammonium iodide, silver iodide, colloidal silver iodide in gelatin, silver lactate, ferrous iodide, mercuric iodide red, mercuric oxide red, strontium iodide, lithium iodide, magnesium iodide, . . . oxide, zinc pyrithione, triclocarban, zinc bacitracin, chlortetracycline hydrochloride, calcium chlortetracycline, oxytetracycline hydrochloride, beta-propiolactone, acyclovir, acyclovir sodium, amantadine hydrochloride, cytarabine, idoxuridine, interferon, gamma interferon, ribavirin, rifampin, suramin, trifluridine, vidarabine, zidovudine, methisazone, tumor necrosis factor, amplitgen, ansamycin, (E)-5-(2-bromovinyl-2'-deoxyuridine, butylated hydroxytoluene, castamospermine, dextran sulfate, dideoxycytidine, dideoxyadenosine, . . .

2. 5,234,767, Aug. 10, 1993, Hybrid paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/450; 436/829; 514/818 [IMAGE AVAILABLE]

US PAT NO: 5,234,767 [IMAGE AVAILABLE]

L9: 2 of 16

DETDISC:

DETD(8)

Hydrophilic . . . glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin-2 and interferon , blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological and NMR diagnosis, . . . polyurethanes, fluorocarbons, and related resins. Oil based materials include an exclusive listing of additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

3. 5,147,723, Sep. 15, 1992, Paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/184.1, 193.1, 196.11, 204.1, 216.1, 229.1, 280.1, 420, 450; 436/829; 514/6, 963; 525/936 [IMAGE AVAILABLE]

US PAT NO: 5,147,723 [IMAGE AVAILABLE]

L9: 3 of 16

DETDESC:

DETD(7)

Hydrophilic . . . glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin-2 and interferon , blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological and NMR. . . fungicides, insect repellants, and lipophilic vitamins and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

4. 5,141,735, Aug. 25, 1992, Substituted amino-benzodiazepines having antiviral activity; Anne R. Bellemin, et al., 424/85.1, 85.2, 85.4, 85.5, 85.6, 85.7; 514/46, 49, 50, 221; 540/570, 571 [IMAGE AVAILABLE]

US PAT NO: 5,141,735 [IMAGE AVAILABLE]

L9: 4 of 16

DETDESC:

DETD(15)

The . . . the preparation of the active ingredient in a carrier which may contain additional medicinally active ingredients; for example, ddC, AZT, interferon , IL-2 or a protease inhibitor. The compositions of the invention suitable for oral administration may consist of liquid solutions such. . . a water-in-oil liquid emulsion, for example, soft gelatin capsules. Tablet forms may include one or more of lactose, microcrystalline cellulose, colloidal silicon dioxide, croscarmellose sodium, magnesium stearate, stearic acid and other excipients, colorants, and pharmacologically compatible carriers.

5. 5,000,960, Mar. 19, 1991, Protein coupling to lipid vesicles; Donald F. H. Wallach, 424/1.21; 264/4.3; 424/7.1, 179.1, 420, 450, 812; 428/402.2; 436/523, 526, 829; 514/963 [IMAGE AVAILABLE]

US PAT NO: 5,000,960 [IMAGE AVAILABLE]

L9: 5 of 16

SUMMARY:

BSUM(46)

Hydrophilic . . . glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin-2 and interferon , blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological and NMR. . . fungicides, insect repellants, and lipophilic vitamins and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or

suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

6. 4,911,928, Mar. 27, 1990, Paucilamellar lipid vesicles; Donald F. H. Wallach, 428/402.2; 264/4.1; 424/1.21, 420, 450, 812, DIG.10; 436/829; 514/6, 179, 963; 525/936 [IMAGE AVAILABLE]

US PAT NO: 4,911,928 [IMAGE AVAILABLE] L9: 6 of 16
DETDESC:

DETD(7)

Hydrophilic . . . glucagon, hypothalamic peptides, pituitary hormones, growth factors such as angiogenic, epithelial and epidermal growth factors, lymphokines such as interleukin-2 and interferon , blood proteins such as hemoglobin and Factor VIII, water-soluble plant hormones and pesticides, radionucleotides, contrast materials for radiological and NMR. . . fungicides, insect repellents, and lipophilic vitamins and derivatives. Oil based materials include some additional lipophilic materials and materials which form colloids or suspensions in oil. A more complete listing of the types of pharmaceuticals that could be encapsulated in lipid vesicles. . .

7. 4,900,679, Feb. 13, 1990, Method for determining the existence and/or the monitoring of a pathological condition in a mammal and a test kit therefor; Charles R. Spillert, et al., 436/69; 422/61, 73; 435/13; 436/64 [IMAGE AVAILABLE]

US PAT NO: 4,900,679 [IMAGE AVAILABLE] L9: 7 of 16
DETDESC:

DETD(54)

. . .
enzyme

		Thrombin	procoagulant	
7	2.0 units/cc			
	4.91 .+- .51			
	4.13 .+- .08*			
	3.72 .+- 1.27			
		Interferon	-	
		Interferon	immunological mediator	pharmacological
agent 9	10 .mu.g/cc			
	4.80 .+- 1.14			
	4.22 .+- 0.84*			
	3.28 .+- 0.68			
		Carrageenan - inflammatory		Carrageenan
		mediator, colloid	9 400 .mu.g/cc	
	4.80 .+- 1.14			
	4.22 .+- 0.84*			
	3.55 .+- .72			
		Latex Beads,		
		Latex. . .		

8. 4,860,738, Aug. 29, 1989, Hand held metered spray dispenser; Manfred K. Hegemann, et al., 128/200.22; 222/162 [IMAGE AVAILABLE]

US PAT NO: 4,860,738 [IMAGE AVAILABLE] L9: 8 of 16
DETDESC:

DETD(9)

The dispenser 10 can be used, for example, to dispense expensive life-saving drugs, for example, interferon, in the nostrils. Because of the expense, the pump must be very accurate and capable of dispensing small amounts per cycle. The fluid may be a colloid solution. The pump should be capable of dispensing metered amounts in the range of 0.02 to 0.2 milliliters and preferably.

9. 4,855,238, Aug. 8, 1989, Recombinant gamma interferons having enhanced stability and methods therefor; Patrick W. Gray, et al., 435/243, 69.51, 172.1, 172.3, 240.2, 252.3, 252.33, 320.1; 530/351; 536/23.51; 930/20, 142, 300; 935/9, 10, 11, 27, 29, 66, 72 [IMAGE AVAILABLE]

US PAT NO: 4,855,238 [IMAGE AVAILABLE] L9: 9 of 16
DETDESC:

DETD(47)

E. . . . which contains salts and an appropriate buffer in the pH range of 6 to 9, preferably about 9. Recombinant gamma interferon is extracted by homogenization of the cell suspension in a high pressure colloid mill such as a Gaulin mill. Sufficient polyethyleneimine is added to the solution to produce a 0.1 to 1% W/V solution. The supernatant contains gamma interferon.

10. 4,853,218, Aug. 1, 1989, Zinc-protamine-alpha interferon complex; Zachary Yim, et al., 424/85.7, 85.4 [IMAGE AVAILABLE]

US PAT NO: 4,853,218 [IMAGE AVAILABLE] L9: 10 of 16
SUMMARY:

BSUM(9)

The present invention relates to an insoluble complex comprising zinc, protamine and alpha interferon, as well as glycine and human serum albumin (HSA), and as such represents a complex mixture of components. While the known zinc-protamine-insulin complex is dependent on those three components for insolubilization, the zincprotamine-alpha interferon complex of the present invention also preferably comprises a second protein, HSA, in order for maximum formation of insoluble complex. . . the minimum amount of soluble protein remains in the supernatant and to insure that the insoluble complex exists as fine colloidal particles which remain in dispersion for an extended period of time, rather than as large colloidal aggregates which settle easily. Another preferred method for forming the insoluble complex comprises the simultaneous addition of protamine and zinc.

11. 4,814,247, Mar. 21, 1989, Method for determining the existence and/or the monitoring of a pathological condition in a mammal; Charles R. Spillert, et al., 436/69; 422/61, 73; 435/13; 436/64 [IMAGE AVAILABLE]

US PAT NO: 4,814,247 [IMAGE AVAILABLE] L9: 11 of 16
DETDESC:

DETD(56)

enzyme

	Thrombin	procoagulant 7	2.0 units/cc
4.91	+-	.51	
4.13	+-	1.08*	
3.72	+-	1.27	

	Interferon	-	Interferon
immunologicalmediator		pharmacological agent 9	10 .mu.g/cc
4.80	+-	1.14	
4.22	+-	0.84*	

3.28 \pm 0.68

Carrageenan - inflammatory

Carrageenan

mediator, colloid 9 400 μ g/cc

4.80 \pm 1.14

4.22 \pm 0.84*

3.55 \pm .72

Latex Beads,

Latex. . .

12. 4,771,769, Sep. 20, 1988, Hand held metered spray dispenser; Manfred K. Hegemann, et al., 128/200.22; 222/162 [IMAGE AVAILABLE]

US PAT NO: 4,771,769 [IMAGE AVAILABLE] L9: 12 of 16

DETDESC:

DETD(8)

The dispenser 10 can be used, for example, to dispense expensive life-saving drugs, for example, interferon, in the nostrils. Because of the expense, the pump must be very accurate and capable of dispensing small amounts per cycle. The fluid may be a colloid solution. The pump should be capable of dispensing metered amounts in the range of 0.02 to 0.2 milliliters and preferably. . .

13. 4,666,839, May 19, 1987, Methods and materials for obtaining microbial expression of polypeptides including bovine prolactin; Lawrence M. Souza, 435/91.53, 69.4, 172.3, 320.1; 536/23.1, 24.3, 24.33; 930/10; 935/8, 10, 16, 17, 18 [IMAGE AVAILABLE]

US PAT NO: 4,666,839 [IMAGE AVAILABLE] L9: 13 of 16

DETDESC:

DETD(85)

A . . . a tryptophan (Trp) promoter sequence and an XbaI site 3' to a Shine/Delgarno sequence followed by a gene coding for

.gamma.- Interferon is used as the expression vector because it contains the necessary unique restriction sites to carry out the following constructions. . . and BamHI sites and the phosphatasing it (calf intestine phosphatase; Sigma). The vector is then ligated to sea plaque (Marine Colloids) purified cGH DNA (BamHI-PvuII small fragment derived from plasmid cGH5), as well as M13mp8 RF DNA which had been cut. .

14. 4,498,485, Feb. 12, 1985, Interferon and interferon inducers combined with tobacco products; William A. Carter, 131/331, 310, 334, 335, 343, 352 [IMAGE AVAILABLE]

US PAT NO: 4,498,485 [IMAGE AVAILABLE] L9: 14 of 16

DETDESC:

DETD(38)

An exemplary device for combining interferon particles with cigarette filters or prefilters is depicted in FIG. 4. A blast of air is supplied by a conventional air source--compressor, impellor motor, diaphragm, etc. The air is driven along a tube and flows past an interferon -dispensing device, for example, a chamber which is agitated or otherwise handled or constructed to maintain a uniform density of airborne interferon particles and which dispenses a known volume of its contents into the tube. A piston device is pictured in FIG. 1 but any device is suitable as long as it can deliver suitable quantities of interferon particles to the tube. A predetermined volume of the airborne particles is introduced into the tube just before the blast of air is generated. During the air blast, the interferon particles are carried a determined distance into the cigarette, which was fabricated by conventional processes. The air blast is terminated and the interferon

particles settle on the filter material. The tube is then moved to the next cigarette (or the cigarettes are moved). . . the process is repeated. The above technique was detailed only the way of example. Other means are possible of combining interferon particles prepared by lyophilization with filters, including the deposition of interferon particles onto filter by gravity, spraying, dusting, or other means of causing particle movement or by electrical attraction, magnetic attraction, or other coating or plating processes. These and other alternative methods are included in our invention. Moreover, interferon particles can be combined with filters at any stage of filter fabrication, providing no subsequent step is used involving heating the core of the filter above 850.degree. C. (the temperature required to destroy the peptide bond). Interferon can be combined with tobacco, instead of with the filter or can be combined with a prefilter which is subsequently attached to the cigarette. Interferon can be deposited as a liquid solution or semisolid or colloid, etc. on filter material, tobacco, or a prefilter with similar results although the efficiency of displacement is much less. All . . . adaptations from this changing field are considered part of the invention. Basically, the invention satisfies the criteria of immobilization of interferon pieces of interferon on or in smoking devices in such a way as to permit the entrainment in the smoke produced by the smoking devices of interferon molecules, or interferon containing particles or complexes of interferon with other substances which may or may not be particulate, in biologically active form.

15. 4,394,372, Jul. 19, 1983, Process for making lipid membrane structures; James L. Taylor, 424/85.4; 514/3, 21, 786, 788, 789 [IMAGE AVAILABLE]

US PAT NO: 4,394,372 [IMAGE AVAILABLE] L9: 15 of 16
SUMMARY:

BSUM(3)

Vesicles . . . The vesicles contain an aqueous liquid, for example an aqueous solution of a biologically-active substance, and generally exist in a colloidal dispersion in an aqueous medium, such as a saline solution. Vesicles provide a method for encapsulating aqueous liquids and are. . . (1974). Vesicles targeted to the liver through the use of digalactosyl diglyceride moieties, containing pharmaceutical agents such as insulin or interferon, have also been disclosed; U.S. patent application Ser. No. 75,310, Geho, filed Sept. 13, 1979, incorporated herein by reference. The. . .

16. 4,143,131, Mar. 6, 1979, Removal of plutonium from hepatic tissue; Arthur Lindenbaum, et al., 514/566; 424/2, 10; 514/772.5, 889 [IMAGE AVAILABLE]

US PAT NO: 4,143,131 [IMAGE AVAILABLE] L9: 16 of 16
SUMMARY:

BSUM(19)

Both the Tilorones and the pyran copolymers are interferon inducers. The term " interferon inducer" indicates a material which will stimulate the production of interferons in a cell. These materials also could be referred to as anti-viral agents because of their ability to counteract viral. . . soluble in a saline solution or the blood stream and therefore avoid any problem which could arise from injecting a colloid or particle suspensions of some sort into the blood stream. When administered in conjunction with DTPA, these materials remove the. . .

=> d his

(FILE 'USPAT' ENTERED AT 09:55:51 ON 30 JUN 95)

L1 6 S INTERLEUKIN?(P)COLLOID?
L2 1 S INTERLEUKIN?(P)(GOLD)
L3 32 S INTERLEUKIN?(P)(METAL?)

L4 5 S (LIPID(W)A)(P)(COLLOID? OR GOLD OR METAL#) L5 26 S
 (PHOSPHOLIPASE?)(P)(COLLOID? OR GOLD OR METAL#) L6 130 S (ENDOTOXIN# OR
 LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID? O R G
 L7 26 S (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID?) L8 82 S
 (INTERFERON?)(P)(COLLOID? OR GOLD OR METAL#) L9 16 S (INTERFERON?)(P)(COLLOID?)

FILE 'USPAT' ENTERED AT 10:50:34 ON 30 JUN 95

= > (tumor(w)necrosis(w)factor or tn timer)(p)(colloid?)
 '(TUMOR(W)NECROSIS(W)FACTOR' IS NOT A RECOGNIZED COMMAND

= > s (tumor(w)necrosis(w)factor or tn timer)(p)(colloid?)

10843 TUMOR
 3996 NECROSIS
 197277 FACTOR
 960 TNF
 45337 COLLOID?

L10 . 3 (TUMOR(W)NECROSIS(W)FACTOR OR TNF)(P)(COLLOID?)

= > d 110 1-3 kwic

US PAT NO: 5,357,636 [IMAGE AVAILABLE]

L10: 1 of 3

DETDESC:

DETD(39)

The . . . hydroxide, ammonia, ammonium hydroxide, lithium hydroxide, barium hydroxide, silver hydroxide, other metal hydroxides, sodium tetradecyl sulfate, sulfur dioxide, pentationic acid, colloidal sulfur, sulfurated potash, sublimed tyrothricin, hexachlorophene, hypochlorous acid, other chlorophors, acetic acid, hydrochloric acid, sulfuric acid, sodium acetate, aluminum acetate, . . . T, silver nitrate, ammoniacal silver nitrate solution, eugenol, elemental iodine, sodium iodide, potassium iodide, calcium iodide, ammonium iodide, silver iodide, colloidal silver iodide in gelatin, silver lactate, ferrous iodide, mercuric iodide red, mercuric oxide red, strontium iodide, lithium iodide, magnesium iodide, . . . oxytetracycline hydrochloride, beta-propiolactone, acyclovir, acyclovir sodium, amantadine hydrochloride, cytarabine, idoxuridine, interferon, gamma interferon, ribavirin, rifampin, suramin, trifluridine, vidarabine, zidovudine, methisazone, tumor necrosis factor, ampliten, ansamycin, (E)-5-(2-bromovinyl)-2'-deoxyuridine, butylated hydroxytoluene, castanospermine, dextran sulfate, dideoxycytidine, dideoxyadenosine, dideoxyinosine, Peptide-T, dihydromethylpyridinylcarbonyloxyazidodeoxyt hymidine, ganciclovir, 2'-fluoro-2'-deoxy-5-iodo-ara C, phosphonoformate, rimantadine hydrochloride and. . .

CLAIMS:

CLMS(5)

5. . . . magnesium hydroxide, calcium hydroxide, ammonia, ammonium hydroxide, lithium hydroxide, barium hydroxide, silver hydroxide, sodium tetradecyl sulfate, sulfur dioxide, pentationic acid, colloidal sulfur, sulfur, sulfurated potash, sublimed tyrothricin, hexachlorophene, hypochlorous acid, acetic acid, hydrochloric acid, sulfuric acid, sodium acetate, aluminum acetate, acetarsone, . . . T, silver nitrate, ammoniacal silver nitrate solution, eugenol, elemental iodine, sodium iodide, potassium iodide, calcium iodide, ammonium iodide, silver iodide, colloidal silver iodide in gelatin, silver lactate, ferrous iodide, mercuric iodide red, mercuric oxide red, strontium iodide, lithium iodide, magnesium iodide, . . . oxytetracycline hydrochloride, beta-propiolactone, acyclovir, acyclovir sodium, amantadine hydrochloride, cytarabine, idoxuridine, interferon, gamma interferon, ribavirin, rifampin, suramin, trifluridine, vidarabine, zidovudine, methisazone, tumor necrosis factor, ampliten, ansamycin, (E)-5-(2-bromovinyl)-2'-deoxyuridine, butylated

hydroxytoluene, castanospermine, dextran sulfate, dideoxycytidine, dideoxyadenosine, dideoxyinosine, Peptide-T, dihydromethylpyridinylcarbonyloxazidodideoxyt hymidine, ganciclovir, 2'-fluoro-2'-deoxy-5-iodo-ara C, phosphonoformate, rimantadine hydrochloride and. . .

US PAT NO: 4,808,402 [IMAGE AVAILABLE] L10: 2 of 3
DETDESC:

DETD(9)

Murine recombinant (r) TNF α . (Urban, J. L. et al., "Proc. Natl. Acad. Sci. USA" 83:5233-5237 [1986]) (approx. 2.9.times.10.sup.7 U/mg) and polyclonal rabbit antibody to murine rTNF- α . (1325 neutralizing units/.mu.l) were produced at Genentech (South San Francisco, Calif.). The activity of TNF α . is based on its cytotoxicity toward murine L-M fibroblasts in the presence of actinomycin-D. One unit of TNF α . is defined as the reciprocal of the test dilution resulting in 50% cytotoxicity. Test samples were prepared at the appropriate. . . ingrowth of new microvessels from the limbal vasculature toward the implants. Seven days after implantation, animals were perfused intraarterially with colloidal carbon (Pellikan, Hanover, FRG), and corneas were fixed and excised, to obtain a permanent record of the vascular pattern of. . .

US PAT NO: 4,006,020 [IMAGE AVAILABLE] L10: 3 of 3
DETDESC:

DETD(16)

The . . . enhancement in copy quality can be achieved by coating photoreceptors in which the photoconductive material is an organic material, e.g., TNF in poly(vinylcarbazole), or an inorganic photoconductor in an insulating organic resin such as CdSs in polyurethane. In the above examples, the organic overcoating is applied from an aqueous solution containing colloidal sized particles of the resinous material. It is not critical that the overcoating be applied in this manner and other. . .

=> s (transforming(w)growth(w)factor? or tgf)(p)(colloid?) 19134 TRANSFORMING
103976 GROWTH

334723 FACTOR?
579 TGF
45337 COLLOID?

L11 1 (TRANSFORMING(W)GROWTH(W)FACTOR? OR TGF)(P)(COLLOID?)
=> d l11 1 cit kwic

1. 5,262,319, Nov. 16, 1993, Method for obtaining bone marrow free of tumor cells using transforming growth factor β .3; Kenneth K. Iwata, et al., 435/240.2, 240.25; 530/399 [IMAGE AVAILABLE]

US PAT NO: 5,262,319 [IMAGE AVAILABLE] L11: 1 of 1
DETDESC:

DETD(176)

Recombinant TGF β .3 bound to specific receptors and had a biphasic stimulatory effect of DNA synthesis, enhanced collagen synthesis and decreased alkaline phosphatase. . . in osteoblast-enriched cultures after 23 hours of treatment as shown in FIGS. 12A, 12B and 12C. When protein concentration of TGF β .3 and TGF β .1 were normalized using both the colloidal gold assay from Collaborative Research (Bedford, Mass.) and silver staining on an SDS polyacrylamide gel, TGF β .3 was significantly more potent than TGF β .1, with an approximate 3-5 fold lower concentration needed for

similar half maximal effects in all three of the above-described biological activities. These results show TGF
-beta.3 to be a potent stimulator of bone cell growth and function.

=> s lymphotoxin(p)colloid?
177 LYMPHOTOXIN
45337 COLLOID?
L12 0 LYMPHOTOXIN(P)COLLOID?

=> s lymphotoxin(p)(gold?)
SEARCH ENDED BY USER

=> s lymphotoxin(p)(gold)
177 LYMPHOTOXIN
49599 GOLD
L13 0 LYMPHOTOXIN(P)(GOLD)

=> s (migration(w)inhibition(w)factor or mif)(p)colloid?
27807 MIGRATION
43854 INHIBITION
197277 FACTOR
244 MIF
45337 COLLOID?
L14 5 (MIGRATION(W)INHIBITION(W)FACTOR OR MIF)(P)COLLOID?
=> d 114:1-5 cit kwic

1. 4,604,280, Aug. 5, 1986, Stabilization of carrageenan-containing toothpaste; George V. Scott, 424/49;
204/157.68; 219/700; 252/315.3 [IMAGE AVAILABLE]

US PAT NO: 4,604,280 [IMAGE AVAILABLE] L14: 1 of 5
DETDESC:

DETD(11)

Research . . . GH, Gelcarin DG, Gelcarin SI, SeaKem.RTM. 5, Seaspen.RTM. PF, Seaspen IN, Gelcarin LMR, Gelcarin MMR, Gelcarin HMR, Gelcarin MAC, Gelcarin MIF, SeaKem C, SeaKem D, SeaKem 9 and SeaKem FL 2 will also be applicable. Such products are available from the Marine Colloids Division of FMC Corporation and descriptions of them are found in Monograph No. 1 of Marine Colloids, Inc. and a Technical Bulletin entitled Technical Seminar Notes, published by Marine Colloids Division of FMC Corporation, Springfield, N.J. 07081.

2. 4,474,818, Oct. 2, 1984, Increasing viscosity of carrageenan- containing compositions with microwave radiation; George V. Scott, 514/777; 53/440; 219/700; 424/49 [IMAGE AVAILABLE]

US PAT NO: 4,474,818 [IMAGE AVAILABLE] L14: 2 of 5
DETDESC:

DETD(11)

Research . . . as Gelcarin.RTM.HWG, SeaGel.RTM.GH, Gelcarin DG, Gelcarin SI, SeaKem.RTM.5, Seaspen.RTM.PF, Seaspen IN, Gelcarin LMR, Gelcarin MMR, Gelcarin HMR, Gelcarin MAC, Gelcarin MIF, SeaKem C, SeaKem D, SeaKem 9 and SeaKem FL 2 will also be applicable. Such products are available from the Marine Colloids Division of FMC Corporation and descriptions of them are found in Monograph No. 1 of Marine Colloids, Inc. and a Technical Bulletin entitled Technical Seminar Notes, published by Marine Colloids Division of FMC Corporation, Springfield, N.J. 07081.

3. 4,473,988, Oct. 2, 1984, Dentifrice packaging process; George V. Scott, 53/440; 219/691; 424/49 [IMAGE AVAILABLE]

US PAT NO: 4,473,988 [IMAGE AVAILABLE] L14: 3 of 5

DETDESC:

DETD(11)

Research . . . SeaGel.RTM. GH, Gelcarin DG, Gelcarin SI, SeaKem.RTM.5, Seaspen.RTM. PF, Seaspen IN, Gelcarin LMR, Gelcarin MMR, Gelcarin HMR, Gelcarin MAC, Gelcarin MIF , SeaKem C, SeaKem D, SeaKem 9 and SeaKem FL 2 will also be applicable. Such products are available from the Marine Colloids Division of FMC Corporation and descriptions of them are found in Monograph No. 1 of Marine Colloids , Inc. and a Technical Bulletin entitled Technical Seminar Notes, published by Marine Colloids Division of FMC Corporation, Springfield, N.J. 07081.

4. 4,457,908, Jul. 3, 1984, Stabilization of carrageenan-containing toothpaste; George V. Scott, 424/49 [IMAGE AVAILABLE]

US PAT NO: 4,457,908 [IMAGE AVAILABLE] L14: 4 of 5

DETDESC:

DETD(11)

Research . . . as Gelcarin.RTM.HWG, SeaGel.RTM.GH, Gelcarin DG, Gelcarin SI, SeaKem.RTM.5, Seaspen.RTM.PF, Seaspen IN, Gelcarin LMR, Gelcarin MMR, Gelcarin HMR, Gelcarin MAC, Gelcarin MIF , SeaKem C, SeaKem D, SeaKem 9 and SeaKem FL 2 will also be applicable. Such products are available from the Marine Colloids Division of FMC Corporation and descriptions of them are found in Monograph No. 1 of Marine Colloids , Inc. and a Technical Bulletin entitled Technical Seminar Notes, published by Marine Colloids Division of FMC Corporation, Springfield, N.J. 07081.

5. 4,353,890, Oct. 12, 1982, Stabilization of carrageenan-containing toothpaste; George V. Scott, 424/49; 204/157.62, 157.68; 219/700; 252/315.3; 424/58; 426/534, 650 [IMAGE AVAILABLE]

US PAT NO: 4,353,890 [IMAGE AVAILABLE] L14: 5 of 5

DETDESC:

DETD(11)

Research . . . GH, Gelcarin DG, Gelcarin SI, SeaKem.RTM. 5, Seaspen.RTM. PF, Seaspen IN, Gelcarin LMR, Gelcarin MMR, Gelcarin HMR, Gelcarin MAC, Gelcarin MIF , SeaKem C, SeaKem D, SeaKem 9 and SeaKem FL 2 will also be applicable. Such products are available from the Marine Colloids Division of FMC Corporation and descriptions of them are found in Monograph No. 1 of Marine Colloids , Inc. and a Technical Bulletin entitled Technical Seminar Notes, published by Marine Colloids Division of FMC Corporation, Springfield, N.J. 07081.

=> s (colony(w)stimulating(w)factor?)(p)(colloid?)

6869 COLONY

13615 STIMULATING

334723 FACTOR?

45337 COLLOID?

L15 .0 (COLONY(W)STIMULATING(W)FACTOR?)(P)(COLLOID?)

=> s (vascular(w)endothelial(w)growth(w)factor)(p)(colloid?) 11729 VASCULAR

2320 ENDOTHELIAL

103976 GROWTH

197277 FACTOR

45337 COLLOID?

L16 0 (VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(COLLOID?)

=> s (vascular(w)endothelial(w)growth(w)factor)(p)(gold)

11729 VASCULAR

2320 ENDOTHELIAL

103976 GROWTH

197277 FACTOR

49599 GOLD

L17 0 (VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(GOLD)

=> s (angiogenin)(p)(colloid?)

43 ANGIOGENIN

45337 COLLOID?

L18 0 (ANGIOGENIN)(P)(COLLOID?)

=> s (angiogenin)(p)(gold)

43 ANGIOGENIN

49599 GOLD

L19 0 (ANGIOGENIN)(P)(GOLD)

=> s (heat(w)shock(w)proteins)(P)(colloid? or gold)]

MISSING OPERATOR 'GOLD)]'

=> s (heat(w)shock(w)proteins)(P)(colloid? or gold)

467976 HEAT

76984 SHOCK

31402 PROTEINS

45337 COLLOID?

49599 GOLD

L20 0 (HEAT(W)SHOCK(W)PROTEINS)(P)(COLLOID? OR GOLD)

=> s (blood(w)group? or Rh(w)factor?)(P)(colloid? or gold)

70219 BLOOD

540731 GROUP?

17143 RH

334723 FACTOR?

45337 COLLOID?

49599 GOLD

L21 14 (BLOOD(W)GROUP? OR RH(W)FACTOR?)(P)(COLLOID? OR GOLD)

=> d l21 1-14 cit kwic

1. 5,385,822, Jan. 31, 1995, Methods for detection and quantification of cell subsets within subpopulations of a mixed cell population; Meryle J. Melnicoff, et al., 435/5, 7.21, 7.24, 7.25, 7.5, 7.94, 975; 436/526 [IMAGE AVAILABLE]

US PAT NO: 5,385,822 [IMAGE AVAILABLE]

L21: 1 of 14

SUMMARY:

BSUM(8)

Another . . . see also U.S. Pat. No. 4,748,129. This method has particular application for blood typing or the detection of antibodies to blood group antigens. Fluorochromes are used to label erythrocyte membranes and the presence of the antibodies or antigens is then determined from. . . employed to measure the presence of antibodies in plasma, erythrocytes in the blood sample are removed by the addition of colloidal magnetite particles and exposure of the sample to a magnetic field.

2. 5,374,531, Dec. 20, 1994, Immunoassay for determination of cells; Bruce D. Jensen, 435/7.24, 7.32, 7.92, 975; 436/518, 523, 526, 533, 534 [IMAGE AVAILABLE]

US PAT NO: 5,374,531 [IMAGE AVAILABLE] L21: 2 of 14
SUMMARY:

BSUM(8)

Another . . . see also U.S. Pat. No. 4,748,129. This method has particular application for blood typing or the detection of antibodies to blood group antigens. Fluorochromes are used to label erythrocyte membranes and the presence of the antibodies or antigens is then determined from. . . employed to measure the presence of antibodies in plasma, erythrocytes in the blood sample are removed by the addition of colloidal magnetite particles and exposure of the sample to a magnetic field.

3. 5,326,857, Jul. 5, 1994, ABO genotyping; Fumi-ichiro Yamamoto, et al., 536/23.2; 435/240.2, 320.1; 536/23.1 [IMAGE AVAILABLE]

US PAT NO: 5,326,857 [IMAGE AVAILABLE] L21: 3 of 14
DETDESC:

DETD(11)

The present invention also provides antibodies that bind to histo- blood group A transferase. The antibodies are useful tools for the cytolocalization, e.g., by immuno- gold electron microscopy, of glycosyl-transferases and for elucidating their role in cellular differentiation and malignant transformation. The purified native histo- blood group A transferase protein described above may be utilized to produce polyclonal or monoclonal antibodies which bind to the A transferase. . .

4. 5,256,532, Oct. 26, 1993, Methods, reagents and test kits for determination of subpopulations of biological entities; Meryle J. Melnicoff, et al., 435/5, 7.2, 7.24, 7.25, 7.32, 7.92; 436/71, 172, 173, 504, 518, 526, 536, 538 [IMAGE AVAILABLE]

US PAT NO: 5,256,532 [IMAGE AVAILABLE] L21: 4 of 14
SUMMARY:

BSUM(13)

Another . . . see also U.S. Pat. No. 4,748,129. This method has particular application for blood typing or the detection of antibodies to blood group antigens. Fluorochromes are used to label erythrocyte membranes and the presence of the antibodies or antigens is then determined from. . . employed to measure the presence of antibodies in plasma, erythrocytes in the blood sample are removed by the addition of colloidal magnetite particles and exposure of the sample to a magnetic field.

5. 5,068,191, Nov. 26, 1991, Purified histo-blood group A glycosyltransferase and antibodies thereto; Henrik Clausen, et al., 530/388.26; 435/183, 193, 240.26, 240.27; 530/386, 395; 935/89, 95, 96, 99, 102, 103, 106 [IMAGE AVAILABLE]

US PAT NO: 5,068,191 [IMAGE AVAILABLE] L21: 5 of 14
DETDESC:

DETD(11)

The present invention also provides antibodies that bind to histo- blood group A transferase. The antibodies are useful tools for the cytolocalization, e.g., by immuno- gold electron microscopy, of

glycosyl-transferases and for elucidating their role in cellular differentiation and malignant transformation. The purified native histo- blood group A transferase protein described above may be utilized to produce polyclonal or monoclonal antibodies which bind to the A transferase. . .

6. 4,920,194, Apr. 24, 1990, Blood substitute; Wolfgang Feller, et al., 530/385; 514/6, 832 [IMAGE AVAILABLE]

US PAT NO: 4,920,194 [IMAGE AVAILABLE]
SUMMARY:

L21: 6 of 14

BSUM(3)

Upon a first view, aqueous hemoglobin solutions might be suitable as ideal plasma expanders having colloid -osmotic oxygen- and carbon dioxide-transporting properties. Moreover, it may be expected that pure hemoglobin solutions do not exhibit any blood group properties so that per se best conditions should exist for a general application to humans.

7. 4,882,425, Nov. 21, 1989, Receptor specific proteins and their use in receptor typing; Richard A. Hull, et al., 530/396; 435/69.1, 71.2; 436/827; 530/350, 395, 820, 825 [IMAGE AVAILABLE]

US PAT NO: 4,882,425 [IMAGE AVAILABLE]
SUMMARY:

L21: 7 of 14

BSUM(4)

Proteins . . . that recognize and bind to specific receptors but which have no known biological function as do hormones, drugs and neurotransmitters. Gold and Balding Receptor Specific Proteins, American Elsevier Publishing New York (1975). The value of RSPs for such uses as blood group determination, bacterial typing, histological and cytochemical staining, cell separation and mitogenic stimulation of lymphocytes has become readily apparent. Lis and. . .

SUMMARY:

BSUM(5)

The first blood group specific RSPs were obtained from extracts of certain plants. Race and Sanger, Blood Groups in Man Blackwell Scientific Publications 6th ed Oxford pp. (1975). These RSPs were specific for the A.sub.1 antigen of the ABO blood group system and could be used to distinguish A.sub.1 from A.sub.2 cells. Presently, a variety of RSPs found in extracts of plant or animal tissues are known to have blood group specificity. Race and Sanger; Gold and Balding (1975). Examples include RSPs with specificity for the A.sub.1, A, D, M, N, T, Sd and Cad serological groups. Although RSP blood typing is limited by the small number of blood groups recognized, RSPs have an advantage over antibody preparations because they are more specific and do not cross-react with closely related. . .

8. 4,439,357, Mar. 27, 1984, Process for obtaining hepatitis-safe, sterile hemoglobin solutions free of pyrogens and stroma; Klaus Bonhard, et al., 530/385; 424/533; 530/410, 416, 829 [IMAGE AVAILABLE]

US PAT NO: 4,439,357 [IMAGE AVAILABLE]
SUMMARY:

L21: 8 of 14

BSUM(17)

In . . . which are no longer suitable for transfusion because they have exceeded the maximum storage time, are pooled thout regard to blood group and treated by stirring with one to six times, preferably 2.5 times, the volume of a 5 to 15%, preferably 10%, sugar or sugar alcohol solution or of a colloid of high

molecular weight. Glucose, mannitol, fructose, sorbitol, xylitol and disaccharides such as saccharose and maltose can be used as sugars and sugar alcohols. Suitable colloids of high molecular weight are hydroxyethyl starch or dextran. The pH of the suspension is adjusted to 5 to 6.5.

9. 4,403,042, Sep. 6, 1983, Detection of cell membrane antigens and corresponding antibodies; Wayne M. Henry, et al., 436/519; 424/11; 436/520, 825 [IMAGE AVAILABLE]

US PAT NO: 4,403,042 [IMAGE AVAILABLE] L21: 9 of 14
SUMMARY:

BSUM(9)

Various . . . techniques have been developed to promote agglutination for the purpose of detection of weakly expressed antigens. In the area of blood group antigens, one method involves postulated reduction of electrical conductance with high concentrations of hydrophilic colloid, e.g., bovine albumin. With enough antibodies, these tests are quite effective and can be used for Rh blood typing. However, . . .

10. 4,350,791, Sep. 21, 1982, Vinylpyrrolidone polymers, their preparation, their use in the preparation of plasma substitutes, and the substitutes thus obtained; Ferdinand Straub, et al., 525/123, 387 [IMAGE AVAILABLE]

US PAT NO: 4,350,791 [IMAGE AVAILABLE] L21: 10 of 14
SUMMARY:

BSUM(1)

First . . . Furthermore, it is necessary to be able to replace the blood without any hazard arising from incompatibility in respect of blood group or rhesus factor. Pure salt solutions (such as physiological sodium chloride solution or Ringer solution) are unsuitable for the treatment. . . their residence time in the circulatory system is too low and because they lack the osmotic pressure associated with a colloid

11. 4,254,239, Mar. 3, 1981, Biodegradable vinylpyrrolidone polymers, their manufacture and use; Ferdinand Straub, et al., 525/123; 524/113; 525/326.9, 361, 374, 386, 452, 453 [IMAGE AVAILABLE]

US PAT NO: 4,254,239 [IMAGE AVAILABLE] L21: 11 of 14
SUMMARY:

BSUM(1)

For . . . is necessary to be able to replace plasma without taking any risks as to compatibility (for example in respect of blood group and Rhesus factor). Pure salt solutions (physiological sodium chloride solution or Ringer's solution) are unsuitable for the treatment of shock, because their residence time in the vascular system is insufficient, and because they lack colloidal osmotic pressure (frequently referred to as oncotic pressure).

12. 4,145,336, Mar. 20, 1979, Carcinoembryonic antigen isomer; Thomas S. Edgington, et al., 530/395; 436/543; 530/350, 389.7, 806, 828 [IMAGE AVAILABLE]

US PAT NO: 4,145,336 [IMAGE AVAILABLE] L21: 12 of 14
DETDESC:

DETD(38)

Antisera. . . in the response and rendered specific by exhaustive absorption with normal human serum, normal erythrocyte stroma, porcine and equine soluble blood - group A and B substances, (Dade,

Miami, Fla., U.S.A.) and lyophilized homogenates of normal adult colon, lung and liver. This anti-serum, . . . by Dr. J. P. Mach (University of Lausanne, Switzerland), an antiserum which was compared with the original anti-CEA antiserum of Gold , et al. The above antiserum binds radiolabelled CEA-S.sub.1, conventional and purified CEA.sub.(Be) from the laboratory of Dr. C. Todd (City. . .

DETDESC:

DETD(53)

Characterization . . . in density by isopyknic density gradient ultracentrifugation. Heterogeneity of CEA has also been demonstrated with respect to the expression of blood - group -related antigens; some preparations of CEA appear to be essentially devoid of A-like blood - group * determinants, while in other studies

blood - group antigens appear to be present on the same molecule expressing CEA determinants (Gold and Gold , 1973; Simmons and Perlmann, 1973). It has been suggested that CEA also possesses blood group Lewis a (Le-a) antigen. (Holburn, A.M. et al, Immunology 26: 831-834, 1974.) Furthermore, since CEA is defined immunochemically, normal serum. . .

DETDESC:

DETD(84)

Gold , J. M., and Gold , P., The blood group A-like site on the carcinoembryonic antigen. Cancer Res., 33, 2821-2824 (1973).

13. 4,140,753, Feb. 20, 1979, Diagnostic method and reagent; Thomas S. Edgington, et al., 436/542, 543, 545, 804, 813; 530/389.7, 395, 413, 416, 417, 806, 828 [IMAGE AVAILABLE]

US PAT NO: 4,140,753 [IMAGE AVAILABLE] L21: 13 of 14

DETDESC:

DETD(49)

Antiserum . . . in the response and rendered specific by exhaustive absorption with normal human serum, normal erythrocyte stroma, porcine and equine soluble blood - group A and B substances, (Dade, Miami, Fla., USA) and lyophilized homogenates of normal adult colon, lung and liver. This anti-serum, . . . by Dr. J. P. Mach (University of Lausanne, Switzerland), an antiserum which was compared with the original anti-CEA antiserum of Gold , et al. The above antiserum binds radiolabelled CEA-S.sub.1, conventional and purified CEA.sub.(Be) from the laboratory of Dr. C. Todd (City. . .

DETDESC:

DETD(67)

Characterization . . . in density by isopyknic density gradient ultracentrifugation. Heterogeneity of CEA has also been demonstrated with respect to the expression of blood - group -related antigens; some preparations of CEA appear to be essentially devoid of A-like blood - group determinants, while in other studies

blood - group antigens appear to be present on the same molecule expressing CEA determinants (Gold and Gold , 1973; Simmons and Perlmann, 1973). It has been suggested that CEA also possesses blood group Lewis a (Le-a) antigen. (Holburn, A.M. et al, Immunology 26: 831-843, 1974.) Furthermore, since CEA is defined immunochemically, normal serum. . .

DETDESC:

DETD(132)

Gold, J. M., and Gold, P., The blood group A-like site on the carcinoembryonic antigen. Cancer Res., 33, 2821-2824 (1973).

14. 4,075,194, Feb. 21, 1978, Novel synthetic undecapeptide and clinical assay; Michael Sela, et al., 530/327; 436/528, 531, 802, 804, 813; 530/405, 812, 815; 930/10, DIG.802 [IMAGE AVAILABLE]

US PAT NO: 4,075,194 [IMAGE AVAILABLE]

L21: 14 of 14

SUMMARY:

BSUM(4)

The carcinoembryonic antigen (CEA) of the colon is a glycoprotein isolated and identified by Gold and his colleagues in 1965, J. Exp. Med. 122, (1965) 467-481. This protein, characteristic of many kinds of cancer tissues, . . . and normal tissues. It has also been reported that in some cases there is an immunological cross-reaction between CEA and blood group substances, Turner et al. J. Immunol. 108 (1972) 1328.

=> s (fibroblast(w)growth(w)factor?)(p)(colloid?)

2353 FIBROBLAST

103976 GROWTH

334723 FACTOR?

45337 COLLOID?

L22 0 (FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(COLLOID?)

=> s (fibroblast(w)growth(w)factor?)(p)(gold)

2353 FIBROBLAST

103976 GROWTH

334723 FACTOR?

49599 GOLD

L23 0 (FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(GOLD)

=> d his

(FILE 'USPAT' ENTERED AT 09:55:51 ON 30 JUN 95)

L1 6 S INTERLEUKIN?(P)COLLOID?

L2 1 S INTERLEUKIN?(P)(GOLD)

L3 32 S INTERLEUKIN?(P)(METAL?)

L4 5 S (LIPID(W)A)(P)(COLLOID? OR GOLD OR METAL#) L5 26 S

(PHOSPHOLIPASE?)(P)(COLLOID? OR GOLD OR METAL#) L6 130 S (ENDOTOXIN# OR

LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID? OR GOLD)

L7 26 S (ENDOTOXIN# OR LIPOPOLYSACCHARIDE# OR LPS)(P)(COLLOID?) L8 82 S

(INTERFERON?)(P)(COLLOID? OR GOLD OR METAL#) L9 16 S (INTERFERON?)(P)(COLLOID?)

L10 3 S (TUMOR(W)NECROSIS(W)FACTOR OR TNF)(P)(COLLOID?) L11 1 S

(TRANSFORMING(W)GROWTH(W)FACTOR? OR TGF)(P)(COLLOID?) L12 0 S

LYMPHOTOXIN(P)COLLOID?

L13 0 S LYMPHOTOXIN(P)(GOLD)

L14 5 S (MIGRATION(W)INHIBITION(W)FACTOR OR MIF)(P)COLLOID? L15 0 S

(COLONY(W)STIMULATING(W)FACTOR?)(P)(COLLOID?) L16 0 S

(VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(COLLOID?) L17 0 S

(VASCULAR(W)ENDOTHELIAL(W)GROWTH(W)FACTOR)(P)(GOLD) L18 0 S

(ANGIOGENIN)(P)(COLLOID?)

L19 0 S (ANGIOGENIN)(P)(GOLD)

L20 0 S (HEAT(W)SHOCK(W)PROTEINS)(P)(COLLOID? OR GOLD) L21 14 S

(BLOOD(W)GROUP? OR RH(W)FACTOR?)(P)(COLLOID? OR GOLD) L22 0 S

(FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(COLLOID?) L23

0 S

(FIBROBLAST(W)GROWTH(W)FACTOR?)(P)(GOLD)

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SESSION WILL BE HELD FOR 30 MINUTES

U.S. Patent & Trademark Office SESSION SUSPENDED AT 11:03:00 ON 30 JUN 95

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